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*The American Journal of*  
**CLINICAL  
MEDICINE**

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DECEMBER

MCMXIX

**INFLUENZA AGAIN**

**T**HE problem of influenza still is under discussion and, accordingly, this issue of CLINICAL MEDICINE contains its share of articles on that topic. However, there are other contributions of equal merit and importance, and well worth your study.

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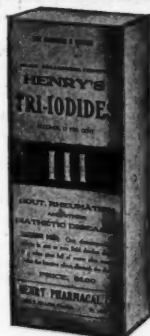
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# The American Journal of Clinical Medicine

A MONTHLY JOURNAL

DEVOTED TO ACCURACY, DEPENDABILITY AND HONESTY IN EVERY DEPARTMENT OF MEDICINE  
AND TO THE SAFEGUARDING OF THE DOCTOR

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Vol. 26, No. 12

December, 1919

## EDITORIAL DEPARTMENT

Is Autointoxication a Myth?	813	The Narcotic-Drug Problem	820
Adolf G. Vogeler	815	The Management of Influenza and Pneumonia	820
Doctor Taylor of "The Medical World"	816	Physician's Secretary, Office Assistant, and Home	
Wood Alcohol	817	Helper	821
A New Library for the University of Louvain	818	The Index and Our Plans	821
Industrial Vocational Rehabilitation	819	Christmas Time	822
The American Social Hygiene Association	819		

## LEADING ARTICLES

Constipation as Seen in Soldiers. Labbe	823	The Clinical Significance of Certain Cells Found in the Urinary Sediment. Williams	837
Is Opium the "Sheet-Anchor of Treatment"? Blair	829	After Thirty Years—XX. Rittenhouse	839
The Management of Influenza and Pneumonia. Maloy	885	The Scope of Antigen (Vaccine) Therapy. Crofton	843

## WHAT OTHERS ARE DOING

Some Remarks on the Nature and the Etiology of Spanish Influenza	849	Does One Attack of Influenza Create an Immunity?	851
About Face Masks	850	Treatment of Drug Addiction at Riverside Hospital	851
Onions as a Prophylaxis	850	How To Test Mushrooms	852
Personal Influenza Prophylaxis	850		

## LET'S TALK-IT OVER

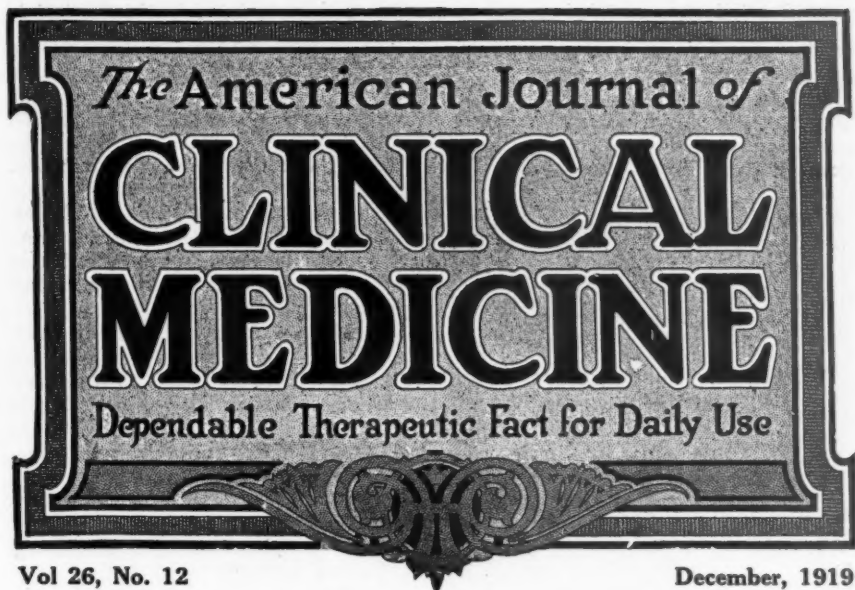
Influenza and Its Microbe	853	Maternal Impressions	863
Care and Treatment of Influenza-Patients	854	Needless Prescribing of Analgesics and Narcotics	864
Aspirin and Acetanilid	857	An Old Practitioner's Plaint	866
Twelve Hundred Cases of "Flu" Without a Death	858	Hereditary Syphilis Or Tobacco—and Alcohol Poisoning	867
A Request for Human Embryological Material	858	In Memory of the Late Doctor Taylor	868
A Course in Psychotherapy and Hypnotism	859	Opposed To Vivisection and Such	868
Industrial Health Work	859	JUST AMONG FRIENDS	869
Letters from France—XV	859	BOOKS	872
Red Cross Notes	862	QUERIES	875

## SPECIAL ARTICLES FOR JANUARY

French Influence on Pharmacology and Toxicology	POUCHET
Progress in Surgery	MORF
Public Health Problems	DRAKE
Educational Service at Fort Sheridan	BLANCHARD
Electrotherapeutics	POPE
A Review in Surgery	GREEN
Tuberculosis	PALMER

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## Is Autointoxication a Myth?

**D**R. JOSÉ ROSELL of Barcelona, Spain, a professor wellknown in various German Universities, has published a brochure<sup>1</sup> containing an account of an extensive series of coprologic studies which he has made in both health and disease. The object of these studies was, to discover what scientific basis, if any, there is for the widely accepted doctrine of intestinal autointoxication which is commonly alleged to be due to putrefaction of imperfectly digested nitrogenous foods. The results of his experiments with various diets, and the study of the resulting feces chemically and microscopically, have led him to conclude that the doctrine of autointoxication from putrefaction, as commonly taught, is a myth and, consequently, that any line of therapeutics based upon that theory is unscientific. A careful perusal of the tabulated results of his experiments,

together with the opinions of other investigators quoted by him, compel one to admit that he has made out a strong case.

The theory of autointoxication was based upon the fact that, in certain abnormal conditions of health, there are found in the feces and in the urine certain aromatic substances of the sulphur-ether type, such as indican (indol), phenol, amidoacids, et cetera. It has been believed that these aromatic bodies are the result of putrefaction, taking the form of ammoniacal decomposition under the action of proteolytic bacteria acting upon the undigested remains of nitrogenous food, such as meat, fish, eggs, et cetera.

Dr. Rosell has tabulated in detail his experiments and their results. Out of the whole number, he has selected as typical 13 cases of intestinal disease and one healthy individual for comparison. There are cases of nervous and fermentative dyspepsia, enteritis, colitis, sigmoiditis, tuberculous enteritis, anemia, with intes-

<sup>1</sup>Nuevos Puntos de Vista sobre Fisiopatología y Terapéutica Intestinales basados en Estudios Coprológicos. Por el Dr. José Ma Rosell, Madrid, 1919.

New Points of View on Intestinal Physiopathology and Therapeutics based on Coprologic Studies. By Dr. José Ma Rosell, Madrid, 1919.

tinal catarrh, constipation, diarrhea, typhilitis, and catarrhal jaundice.

The following types of alimentation were employed as test diets, each type being given for three days:

1. What is known as the test diet of Schmidt, consisting of a small amount of rare-cooked veal, an egg, toast or hard biscuit, oatmeal, potato, butter, milk, tea or cocoa.
2. Milk diet, with a little hard biscuit.
3. Bland starch diet—consisting of soups made of cereals, rice, oatmeal, corn or wheat, fine and well cooked.
4. Bland nitrogenous diet—eggs in custards and soufflés, calves' brains, gelatins, glutens.
5. Vegetables—green or dried, potatoes, turnips, beets, greens, salads, fruits raw or cooked, almonds, filberts, raisins, sweets made of flour and sugar.
6. Animal diet—free choice of meats, eggs, fish, shell-fish, cheese, some gluten bread.
7. "Water diet"—that is, fasting, with the ingestion of water only.

With each of these diets, a thorough chemical and microscopical study of the feces was carried on.

The author does not maintain that there is no absorption of poisonous products from the intestine, but, that those substances, instead of being the products of decomposition of undigested food, are really exudates of the intestinal mucosa, true excretions, the products of metabolism in the tissues. He uses the term "so-called" in speaking of these poisons found in the feces and urine, because he claims that they occur in such small quantities that up to the present time they have not been isolated in amounts sufficient for reliable study.

It has been customary to put patients supposed to be suffering from autointoxication upon a milk diet to stop the putrefactive process in the intestine, but Dr. Rosell found that, in certain patients, instead of the milk diet being followed by the disappearance of indican, phenol, et cetera, from the feces and urine, there even was an increase of these substances while the patient was improving in health. From this fact, he concludes that they are not the products of putrefaction of undigested food and must, therefore, be excretions of the intestinal glands. He also

regards it as throwing doubt upon the great toxicity that has been attributed to these bodies.

The description of his experiments and the detailed effect in each patient is too long to be transcribed here; so, we will content ourselves with giving, in addition to his conclusions mentioned above, the reports of a few other investigators whose results are similar to his.

Albu and Eisenstaedt found no diminution of the aromatic bodies in the urine under a diet of starches and milk, but in many cases found them more abundant than under a meat diet.

Von Morazewsky found that the quantity of indol in the feces was increased on a diet of starches, and decreased on green vegetables and meat; and Munk, feeding the same patients on certain vegetable salads with cucumbers and fruits, found the phenol in the feces more abundant than on a meat diet, in some cases even 8 times as great.

Albu found in habitual vegetarians strong reactions of indican.

Baumstark and von Morazewsky, in prolonged experiments, established the fact that the amount of indoxyl, or indican, in the urine is independent of the amount of indol in the intestine.

Ury, a much quoted investigator, found no appreciable difference between the indol, phenol, and aromatic oxy-acids in the feces, whether the individual was constipated, or had normal evacuations, or evacuations produced by castor-oil.

The influence of certain reflex irritations is interesting in this connection. Blumenthal found the indican in the urine increased in perityphlitis, gastric and duodenal ulcer, under any diet whatever. Becaroni found it increased by massage and other mechanical irritations.

Hofman had a case of hemiplegia in which strong indicanuria was accompanied by indican in the sweat, staining the skin blue in the crural and scrotal region.

Gans describes a case of intense nervous disorder in which indican was plentiful in the urine and there were blue spots all over the body which stained the clothing. With cessation of the psychic condition, the indican disappeared. In another patient, the indican came and went with menstruation.

Freund and Singer report cases of skin troubles, senile prurigo, acne vulgaris, and

pruritus, in which there was indicanuria, disappearing on curing the skin disease.

In fasting, a number of investigators found, as did our author that the indican was not decreased but increased, in many cases, a fact which is strongly suggestive of tissue metabolism as the source of these aromatic bodies.

Dr. Rosell's experiments, and his publication of his results, and those of other investigators along the same lines, will, it is to be hoped, stimulate further study of this interesting subject.

If a man thinks sickness, poverty and misfortune, he will meet them and claim them eventually as his own.—Carlyle.

### ADOLF G. VOGELER

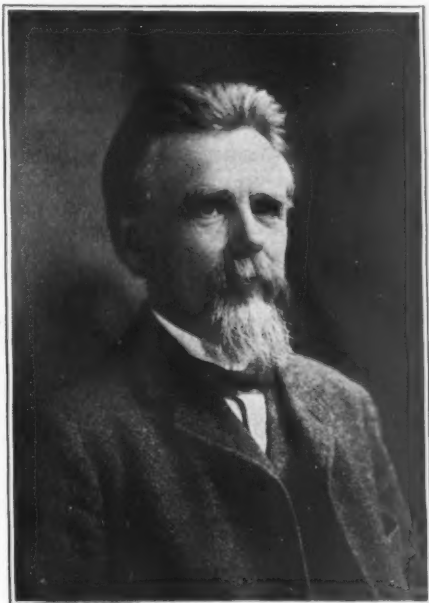
On October 30, 1919, we lost by death one of the strong silent forces which have meant so much in the building of CLINICAL MEDICINE. Upon that day, Adolf G. Vogeler, who has been associated with the editorial department of this journal for twelve years, passed away after a prolonged period of ill health terminating in an attack of cerebral hemorrhage.

Mr. Vogeler was born in Germany on October 24, 1851, and came to this country with his parents when he was but ten months old. His father was a physician and did a large country practice only a few miles west of Chicago. He was educated in a Lutheran denominational school, studied three years in Concordia College at Fort Wayne, Indiana, and graduated from the Chicago College of Pharmacy, in 1873, standing at the head of his class. In 1875, he became owner of a drugstore, but retired from the retail business in 1889.

In 1883, he became associate editor of the *Western Druggist*, giving up his position only a few months later, but, in 1889, he again became connected with this journal which he then served as editor for several years. In 1904, he resigned from this position on account of ill health, and then spent about a year on the Isle of Pines. In 1907, he became copy-editor of THE AMERICAN JOURNAL OF CLINICAL MEDICINE, a position which he occupied to the time of his death. For the last three or four years he had been unable, on account of ill health, to come to the office, but had carried on his work at his own home.

The preceding rough outline of Mr. Vogeler's life conveys no conception of the

exceeding importance of the work which he did. Not only was he one of the best-informed men in this country with regard to pharmaceutical problems, but, he was a student of the philosophy of pharmacy and medicine, two subjects that, to him, were of the greatest interest and importance. With possibly two or three exceptions, no man in the country was so conversant with



Adolph G. Vogeler, 1851-1919

the literature of pharmacy as he, and, as he had a highly developed critical faculty, he was an invaluable helper and guide in the editorial work of this journal, since practically every piece of copy which has been printed in it for the last twelve years passed through his hands.

In another respect, Mr. Vogeler was an unusual man. Through many years of editorial experience and study, he had acquired a remarkable technical knowledge of the English language. Few men knew, so well as he, the exact meaning of words, the correct structure of sentences, the proper use of punctuation. We pride ourselves that CLINICAL MEDICINE is one of the most carefully edited professional journals in this country. That it is so, we owe very largely to the "style" that he did more than anyone else to develop. He in-

sisted upon accuracy of statement; he disliked all obscurity of expression.

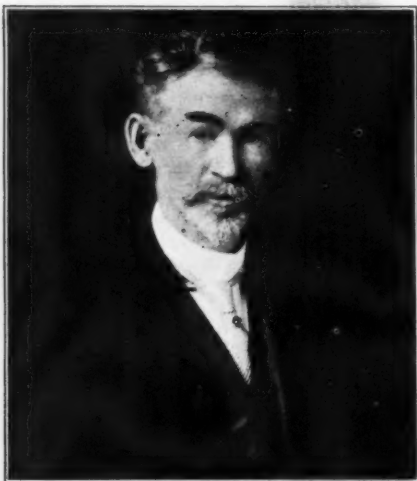
He was a man of very unusual mind, intellectual, thoughtful, uncompromising in his insistence upon what he believed to be the truth. Under different circumstances, he might have become a great man, but, for years, he had been handicapped by ill health and by a temperamental reticence that prevented him from mingling with other men.

Those of us who knew Vogeler will miss him greatly, and we know that our readers, without always knowing why, will also miss the quiet, strong, constructive influence that he exerted upon *THE AMERICAN JOURNAL OF CLINICAL MEDICINE*.

Faith is a great antidote for many. We fear because we cannot see the way. Faith sees the way.

#### DOCTOR TAYLOR OF "THE MEDICAL WORLD"

On November 5, we received telegraphic information that Dr. Charles F. Taylor had succumbed to cardiac disease from which he had suffered for years and which had confined him to a sick bed for several months. Doctor Taylor was known



Dr. C. F. Taylor, 1856-1919

to the medical profession all over the United States as the editor and publisher of *The Medical World*. He was also a brilliant and prolific writer on local, national and international governmental problems and published many books and

pamphlets on these questions. He published a quarterly magazine known as *Equity*, which attracted international attention among public men and students of governmental problems. Doctor Taylor's work as a publicist was conducted at great expense for what he considered to be the public good and without thought of financial or other personal reward for himself.

Charles Fremont Taylor was born on July 3, 1856, in the little village of Attica, Ind. There, his education was begun in the public schools and, later, continued at the Normal College at Valparaiso, Ind. Later, he attended the Louisville College of Medicine for one year but finished his medical course and took his degree, in 1880, at the Central College of Physicians and Surgeons of Indianapolis, which subsequently was merged with the Indiana Medical College into what is now called the Medical College of Indiana.

He began practicing medicine in Putnam County, Indiana, and later continued to practice his profession in Indianapolis. In 1883, he left that city and went to Philadelphia with the idea of starting there a medical journal along new and original lines. Doctor Taylor's plan was, to establish a journal that would be edited entirely in the interests of the medical profession, free from the commercial interests of advertisers. His idea was, to give his readers information of practical value rather than theoretical articles and reports of unusual cases that the average physician in family practice rarely if ever encounters.

With this purpose, Doctor Taylor started *The Medical World*, virtually "on a shoestring". All his worldly possessions, when he came to Philadelphia, were carried in a hand bag and he had less than \$500 in cash and credit for the enterprise. That he had struck the right vein, was evident from the first and, in a few years, *The Medical World* became, as it still is, one of the most popular and widely circulated of the medical journals in the United States.

But, with the increasing success of his medical journal, Doctor Taylor was not content to merely sit down and accumulate a fortune as he could easily have done. His mind was alert to the need of better government in city, state, and nation. It was in the early nineties that he began activities along these lines, which later

made him a figure of national prominence in various movements for popular government.

In all of these public interests, Doctor Taylor never failed to keep up his personal direction of *The Medical World*. One of the notable facts of his career is found in his determination to tell the thousands of doctors in *The Medical World* what was being done in the way of governmental reform. To do this, he conceived the unique feature, for a medical journal, of what he entitled "Our Monthly Talk." This was such an innovation that many of his subscribers objected; but, he insisted that a physician should be a citizen as well as a doctor; he persisted and, finally, won many more subscribers than he lost. This persistent work, which he has kept up since 1894, has had much to do with awakening the medical profession along these lines.

Later, he started another unique department in *The Medical World* called "Business Talks to Doctors" and in which he discussed physicians' business problems. In this department, he has doubtless been instrumental in saving hundreds of thousands of dollars to doctors who are, as a rule, careless in their collection and "easy marks" to promoters of all sorts of fake securities.

*The Medical World* will be published in the future by Doctor Taylor's nephew, Edgar S. Taylor, who has been active in the business for twenty-two years and who has had entire charge of the business management for many years. The editorial department will be conducted by Dr. John C. Rommel, who has been associated with Doctor Taylor for a number of years and who in recent years has done all of the editorial work with the exception of the Business and Monthly Talks which were always written by Doctor Taylor.

There has always been a close bond of sympathy between Doctor Taylor and us. The aims of *The Medical World* and of CLINICAL MEDICINE had at least one thing in common, and that was, the desire to give the utmost practical assistance and sympathy to the man on the firing line. This feeling was intensified by the warm personal affection which we felt for Doctor Taylor and which we believe he enjoyed to count him among our friends pertained for us. We have felt it a great

and we have enjoyed and profited by this friendship.

During periods of great trial and anxiety, he was a warm-hearted, loyal, sympathetic, big-hearted man—a man whose great desire in life was, not, the accumulation of money, or power, or fame, but to be of service to his fellows and to the world, and this desire was expressed not only through his work in the *World*, but also through the little journal *Equity*, and his numerous and stimulating contributions to the great struggle for economic betterment.

Under the able direction of Doctor Rommel and Mr. Taylor *The Medical World* will continue to prosper but, there will be thousands of us who will miss in its pages the kindly personality of this man, who in many respects was truly great.

The intellect has only one failing, which, to be sure, is a very considerable one. It has no conscience.—Lowell.

### WOOD ALCOHOL

The following article is taken from *The News Letter*, which is published by the National Committee for the Prevention of Blindness, Inc., at 130 East Twenty-second St., New York, N. Y., and is given space here in its entirety for the reason that it states the very important problem of wood alcohol very fully. Physicians throughout the country should see to it that their clients and patients and all those with whom they come in contact are fully informed concerning the serious dangers inherent in the internal use of wood alcohol. It is one of the most pernicious poisons that we have because of the cruel damage that it works in those using it wrongly. Unfortunately, it is the ignorant who do so, those who consider only the fact that it is an "alcohol" and want something with a kick in it. Doctor, please tell people clearly that wood alcohol is a rank poison, that it should never be used at all for medicinal purposes, not even for external application. Its sole place where its employment is at all justified is, in the industries. The article referred to is as follows:

During the last few months scarcely a day has passed without bringing to the office of the National Committee for the Prevention of Blindness press-clippings announcing new cases of death and blind-



ness resulting from the drinking of wood alcohol or denatured alcohol. These cases are due, in part, to the ignorance of many regarding the poisonous qualities of these fluids and, in part, to the fact that unscrupulous persons sell mixtures adulterated with wood- or denatured alcohol. So alarming has the matter become that the office of the Commissioner of Internal Revenue has issued the following notice:

*"To Collectors of Internal Revenue and Revenue Agents in Charge:*

"T. D. 2914, issued today and showing additional matter to be affixed to containers of completely denatured alcohol, is called to your especial attention.

"Reports recently received in the Bureau establish that completely denatured alcohol is being used extensively for bathing and rubbing purposes. This is contrary to the law and regulations, and such uses can not be tolerated, as the completely denatured alcohol is highly injurious to the skin and animal tissue.

"It is also established that completely denatured alcohol is sold by irresponsible dealers under such circumstances as to assure them that it is being used for beverage purposes. Where it is so used for any length of time, blindness inevitably ensues, and the continued use can only result in death.

"Collectors should use every means at their disposal to make known to the public the dangers of either external or internal uses of completely denatured alcohol. Wherever collectors or revenue agents in charge hear of a misuse of completely denatured alcohol, a most thorough and careful examination should be made immediately and all the facts fully reported to the Commissioner for the infliction, upon the responsible parties, of the ultimate penalties provided by law.

*"To Internal Revenue officers and others Concerned:*

"In view of the grave and extended abuses of the use of completely denatured alcohol reported, it is deemed necessary to print upon the labels affixed to wholesale and retail packages a further and more scientific warning as to its use than is shown on the present required label.

"In addition to the present matter on the labels, there will be required, hereafter, on all new labels, the printing, in large letters in red ink, under the skull and bones symbol, the word POISON, and at the bottom of the label there will be printed the following statement:

"Completely Denatured Alcohol is a violent poison. It can not be applied externally to human or animal tissues without seriously injurious results. It can not be taken internally without inducing blindness and general physical decay, ultimately resulting in death."

"Until the present stocks of labels are

exhausted, this additional matter may be affixed to the containers on a separate label pasted above the present required label.

To help in educating the public to a wide knowledge of the dangers from the use, external or internal, of wood alcohol or denatured alcohol, the National Committee for the Prevention of Blindness has enlisted the cooperation of the press throughout the country in printing a short popular article on the subject. A more comprehensive exposition was prepared by the Field Secretary, to appear in the October issue of *Safety*, published by the Safety Institute of America.

To the same end, the National Safety Council issued a special bulletin on the subject that will come to the attention of over five million workers in the industries of the United States.

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Failure exists only in the grave. Man, being alive, hath not yet failed; always he may turn about and ascend by the same path he descended by; and there may be one that is less abrupt (albeit longer of achievement) and more adaptable to his condition.  
—"The Magic Story."

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#### A NEW LIBRARY FOR THE UNIVERSITY OF LOUVAIN

A few weeks ago, Cardinal Mercier of Belgium visited the United States of America for the purpose of expressing his personal gratitude and that of the Belgian people for the aid and sympathy rendered to Belgium, by the American people, during the past five years.

Cardinal Mercier will go down in history as one of the heroic persons who disdain, in time of danger, to consider their individual safety and welfare, even jeopardizing their lives for the sake of opposing unjust oppression and defending the wronged and the injured.

The situation of Belgium during and since the war is a peculiarly appealing one, Robbed of almost all of its resources, except for its indomitable courage, the Belgian nation literally is obliged to start afresh in order to regain its position among the civilized nations of the world.

To physicians and to other professional people, the wanton destruction of the University of Louvain was a particularly objectionable and despicable instance of war-time excesses and, among the attempts to restore this ancient seat of learning to renewed usefulness, there has been formed

a National Committee of the United States for the Restoration of the University of Louvain.

As a tribute to Cardinal Mercier's personal heroism, this committee hopes to be able to raise a fund for the building and equipment of a library for the University of Louvain to take the place of that destroyed by the invading German armies in 1915. The chairman of the committee is President Nicholas Murray Butler, of Columbia University. The office of the secretary is located at 407 W. 117th St., New York City. Contributions, large or small, toward this restoration fund may be sent either to Doctor Butler or to the secretary.

This is a worthy undertaking and we hope that many physicians may spare a dollar or two—or more, to further it,

#### INDUSTRIAL VOCATIONAL REHABILITATION

We are informed that vocational rehabilitation, similar to that now in operation for disabled soldiers and sailors, is provided for "persons disabled in industry or otherwise", in the Smith-Bankhead bill which has just passed both houses of Congress.

The bill provides one million dollars yearly to enlarge the scope of the original Smith-Hughes act, creating the Federal Board for Vocational Education, and its recent extension so as to assure also to the maimed victims of industrial accidents the opportunity for vocational re-training into skilled occupations suited to their physical powers and restoration to useful, self-sustaining jobs.

Physicians, especially industrial physicians, employers, state workmen's-compensation officials and organized labor endorsed the campaign for this protective legislation which was aggressively led by the American Association for Labor Legislation, the latter being active also in promoting workmen's health insurance as the next big step following the successful development of workmen's compensation laws.

As was pointed out in the congressional debate, there are at present more than one hundred thousand permanently incapacitated workers in the United States, who will be benefited by this legislation, and this large army of casualties of peace is

being increased at the rate of 11,500 every year.

Under the bill as passed by Congress, the individual states must provide at least one dollar for each dollar expended by the federal government, in behalf of their own crippled workers. Several states have recently taken favorable action in anticipation of the congressional cooperation now assured in the Smith-Bankhead bill.

Seek comrades among the industrious, for, those who are idle will sap your energies from you.—"The Magic Story."

#### THE AMERICAN SOCIAL HYGIENE ASSOCIATION

An army doctor has stated that an increase in the venereal-disease rate follows in war as surely as the recoil accompanies the discharge of a gun. Probably, this has been true of past wars, but, it by no means is inevitable. Surely, we should be sorry to think that it must be.

In the words of Dr. William H. Zinsser, the director of the department of public information of The American Social Hygiene Association, Inc., (105 W. 40th St., New York), the spread of any disease is checked when "Tom and Jack" and "Dad and Son" can openly discuss its causes and effects. The venereal diseases will be put in this class if honestly regarded as a problem affecting the health, happiness and efficiency of any community. This accomplished, they can be made as harmless as yellow fever now is in the Panama.

The American Social Hygiene Association has issued, in the immediate past, several publications in which venereal diseases are discussed on a sane basis and considered from a commonsense viewpoint. These publications are not technical but present facts in an interesting manner readily to be understood by the laity. That this is both needed and appreciated, is shown by numerous communications from factory and farm, from home and office. Doctor Zinsser relates that "Mr. Mechanic writes for advice and information, while Mr. Manager is pleased to contribute to a practical work that appeals to him."

This unafraid and commonsense attitude in dealing frankly with the venereal-disease problem is a late development, to be sure. Yet, it follows necessarily in view of the fact that the old ostrich-like meth-

ods, through which we tried to eliminate the existence of the evil by hiding it from view, have succeeded only in promoting its constant aggravation and more serious development.

Publicity methods having proved effective, the results of the antivenereal disease campaign are limited only by the number of people that can be reached; the success of the campaign is dependent upon the popular interest and the support granted to the work.

Such support should be given, first of all, by physicians and, through them and with their cordial encouragement, by lay people. Any man or woman believing that the principles of social hygiene should be advanced in every way, consistent both with established procedures and with new methods which give sound assurance of promoting the social health, is eligible to apply for membership.

It is to be kept in mind that for the present the main activity of the American Social Hygiene Association is being directed against the venereal diseases, this movement being maintained in cooperation with the United States government (U. S. Public Health Service) and with state agencies.

No one can deny the great need or the supreme importance of this movement. It is as seriously needed as is the antituberculosis campaign and it is inevitably our present duty to fight against one of the most serious impediments to the continued healthy and wholesome progress of our race. We wish to encourage physicians and lay people to apply for membership in The American Social Hygiene Association. The annual dues are but small (\$2.00) and the good that this money accomplishes will be the greater the more such annual dues are paid in; in other words, the more people apply for admission to the Association.

Whatsoever you desire of good is yours. You have but to stretch forth your hand and take it.—  
"The Magic Story."

#### THE NARCOTIC-DRUG PROBLEM

In his discussion on opium as the sheet-anchor of treatment, appearing among the leading articles of this issue, Dr. Thomas S. Blair, who is chief of the Bureau of Drug Control of the Pennsylvania Department of Health, shows that ninety percent of the narcotic drugs dis-

pensed by physicians or prescribed by them for dispensing through druggists are ordered by only one-third of the physicians and dentists of the state of Pennsylvania, and that the other two-thirds of the physicians make use of only ten percent of the total amount of narcotics administered.

Doctor Blair shows that the one-third employing that disproportionately large amount of narcotic drugs is recruited from the less-well equipped and educated members of the medical and dental professions. It is to be inferred from this that, with more exact education and greater ability, medical men learn to meet the indications, apparently calling for opium and kindred drugs, in other ways that are equally efficient, as far as the relief of pain is concerned, while, undoubtedly, less fruitful or dangerous consequences.

We desire to impress upon our readers the importance of studying Doctor Blair's communication with great care. One may have no matter what personal opinion as to the justice or the necessity of narcotic-drug legislation limiting and controlling the dispensing and prescribing of habit-forming drugs, or of prohibition legislation, making the manufacture, sale, and use of alcoholic beverages illegal. The point at issue is, that both classes of remedies, narcotics as well as alcoholics, have been sadly abused in the past, and it further seems impossible for us, as a people, to practice moderation in anything. Seemingly, we have to go to extremes either in one direction or another.

We have our personal opinions; however, the fact is, that the dispensing and prescribing of various potent drugs and, incidentally, drugs endowed with grave possibilities of danger have been circumscribed and limited by legal enactment. We believe that, as a whole, this "interference with the personal liberty of American citizens" will result in the greater good of the greater number of citizens. We are convinced that the ultimate outcome of this restrictive legislation is advantageous to our patients and to the nation at large.

#### THE MANAGEMENT OF INFLUENZA AND PNEUMONIA

In another department of this issue of CLINICAL MEDICINE, Dr. Bernard T.

Maloy describes a mode of treatment by which he has been able to guide a great many influenza and pneumonia patients to recovery, even though their condition at the height of the disease was extremely serious. In Doctor Maloy's discussion, the confident employment of a deliberately planned drug therapy stands out markedly from among the mass of publications on the treatment of these acute infectious maladies. It is pleasing to the general practitioner of experience to see such convincing evidence presented that directly contradicts that pernicious "expectant" treatment of serious diseases and it is a cause for satisfaction to find our own assertions confirmed, that much good can be accomplished by active, well considered treatment for the relief, and prompt restoration to health, of influenza and pneumonia patients.

It will be noted that Doctor Maloy employed, among other things, various galenical preparations. Personally, we believe aconitine hydrobromide to be superior to the tincture, if only for the reason that the tinctures dispensed over the drug counter have been shown to be sadly unreliable as to strength. Likewise, our personal preference is for veratrine in place of *veratrum viride*; for atropine in place of powdered extract of belladonna, and so forth. That, however, can not cause us to raise an issue with Doctor Maloy. The principal point is, our cordial agreement with him in his excellent, optimistic, and courageous therapy in the treatment of very serious diseases.

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The Ishmaelite and the leper are the same, since both are abominations in the sight of men—albeit they differ much, in that the former may be restored to perfect health. The former is entirely the result of imagination; the latter had poison in his blood.—"The Magic Story."

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#### PHYSICIAN'S SECRETARY, OFFICE ASSISTANT, AND HOME HELPER

In a recent number of the *Boston Medical and Surgical Journal*, there appeared a correspondence from Dr. J. Madison Taylor on a subject, or, rather, a number of subjects that have given rise to much difficulty, namely, the question of secretaries and assistants to physicians and that of home helpers to the physicians' wives. Doctor Taylor suggests that it would be

possible to have these three positions filled, not only in a given physician's office, but also in his home and by the same young lady.

This suggestion is not without much to commend it. The third part of the triple duties, namely that of home helper, need not give cause for unfavorable criticism. As, years ago, in New England, young women would spend a year or two in the houses of friends or acquaintances of their parents as "mothers' helpers", where they took a postgraduate course, as it were, in housekeeping and managing a family, so, before the war, it had been customary in many German families to receive young ladies in the same manner, namely, as "mothers' helpers". They were on social equality with the family, being in no wise treated as servants and, indeed, very often occupied the position of an eldest daughter of the house.

As to the additional functions suggested by Doctor Taylor, namely those of office attendant and of secretary, we believe that this is quite feasible in small towns and country places; while, of course, in large cities conditions are so different and more complicated as to require individual treatment. Altogether, Doctor Taylor's plan seems to us to contain many possibilities incidental to solving the problems of many young girls who have completed their schooling and dislike to stick around at home, while for some reason or other it may not be feasible for them to take positions in stores or offices. It also helps to solve a problem for the doctor that may have been a very difficult one. Finally, the advantages to the patient and long-suffering doctor's wife are a further cause for commendation.

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#### THE INDEX AND OUR PLANS

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By the time that this issue of *CLINICAL MEDICINE* comes to your desk, Doctor, the Index, or table of contents, is being set up in type. It would have been included in the December issue, were it not for the fact that we are enjoined, by the printer as well as by the government to save paper as much as possible.

Therefore, we shall not print a larger edition of the Index than is called for. But, we want every subscriber of *CLINICAL*

MEDICINE who desires it to have a copy. Indeed, every one *should* have one and should have each year's file of the journal bound for later reference.

Now, please, everybody who desires to receive the Index, *please* sit down now and send us a postcard to that effect. Only, DO IT NOW; and don't ask for it a year, or two, or three years from now. On the number of requests received will the size of the edition depend.

Another thing: The next issue of CLINICAL MEDICINE will be the first number of the twenty-seventh volume. That means, that many subscriptions to the JOURNAL have run out and, now, must be renewed. Besides it will be necessary to raise the subscription price after New Year; so, it is policy to act at once. Please send in your renewal subscription promptly.

For this coming year, we have several mighty good things on the program. The series of contributions from the foremost French clinicians will be continued; we have about twenty such articles on hand at the present time. Also, we have received the promise of splendid articles from several prominent physicians in our own country, and we shall, probably, get many more.

We want to try to make CLINICAL MEDICINE even more useful and serviceable, in the future, than it has been in the past. For that, though, we need your help. We are making plans and are preparing several articles that will make you think. Having printed them, we shall put it squarely up to you to do your share, by entering the discussions that we intend to open, and, in that manner, to bring about an exchange of opinions and views on various matters that are of interest to physicians, as physicians and, not any less, as citizens.

### CHRISTMAS TIME

This editorial is being written in November, and, as I gave the title, my secretary remarked: "Pretty hard to feel Christmassy now." It might seem so if we consider how short a time ago we complained of the heat and if we look out through parks and fields (though fields don't often come within our citified ken)

in their variegated multicolored autumn-clothing.

Nevertheless, *tempus fugit* inexorably, and if you will look at your calendar you will find that it is really and truly Christmas month and Christmas time; which means, the last month of the year, and being followed by the beginning of a new year, a new space of time as we measure it, the beginning of a new volume of CLINICAL MEDICINE, and the time for making new resolutions—that for breaking them will follow later.

However, all joking apart, Christmas time naturally carries with it its own thoughts and sensations, joyfully anticipatory for children, pleasant or sadly reminiscent for grownups. The message of peace on earth and good will toward men has been disregarded so terribly during the last few years and we still find ourselves, politically, socially, and economically, in so distressing a period of reconstruction, there is, everywhere, so much unrest, dissatisfaction, turmoil, while in many parts of the world, even, war has not yet ceased, that the message of peace on earth does not seem to fall on very appreciative or receptive ears.

Yet, it is that which we are striving for and it is physicians, especially, who hold it as their duty and their privilege to follow the pursuits of peace, to mend that which war and other disturbances have injured, and to be a potent factor in the peaceful, happy, and successful life of the nation.

In truth, Christmas time is not, or should not be, limited to one week or one month of the year. The preacher's admonition that we shall keep and foster the Christmas spirit in our hearts the year 'round is dictated by higher views of our duties and privileges than those that commonly influence us. Let us keep alive the Christmas spirit; let us maintain it in our dealings with our patients and with all those with whom we come in contact, not forgetting our colleagues in the medical profession, even though they may be our competitors.

The Christmas spirit is the same that dictated the Sermon on the Mount. It is the root of the Golden Rule. It is the spirit of fair dealing, of honesty of purpose and of useful accomplishment.

A HAPPY CHRISTMAS TO EVERYBODY!



# Leading Articles

## Constipation as Seen in Soldiers\*

By MARCEL LABBE, M. D., Paris, France

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Physician to the Charity Hospital, Paris

**C**ONSTIPATION is one of the most frequent and, at the same time, most serious affections to which the war has given rise; despite the numerous cases of dysentery that soldiers have acquired in the Orient, there still are more cases of constipation in the army than of diarrhea.

The reason of this is easily understood. There is, first, the quality of the diet, which is too rich in meat and deficient in fresh vegetables, the effects of which are felt, particularly, by soldiers coming from rural districts (and who constitute the majority of our soldiers), accustomed, as they are, to food that is copious in amount and largely vegetable, which strongly stimulated the digestive secretions and peristaltic movements. Then all those living in the trenches experience great difficulty in emptying their bowels, which not only is a difficult, but, even a dangerous undertaking in the active sectors, where one runs the risk of being hit by a bullet while being at stool. In consequence, many men acquire the habit of emptying the bowel but infrequently, which, of course, leads to constipation. Furthermore, many men who, in civil life, took proper care of their digestion, could

not continue those precautions (use of laxatives, enemas, suppositories) by means of which they formerly combated their tendency to constipation.

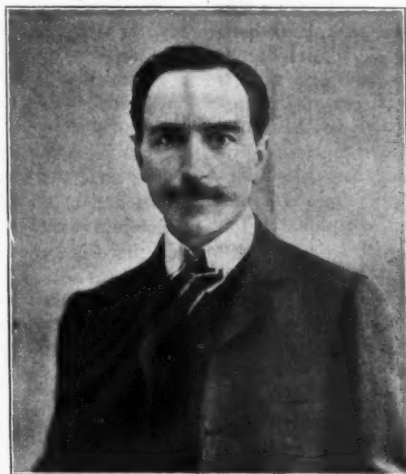
### Clinical Forms of Constipation

Every degree of the affection is encountered from the simple and easily tolerated constipation, to the serious forms that are complicated with infection or intoxication and to attacks of peritonitis that appear in the course of inveterate constipation and have been mistaken, more than once, for tuberculous peritonitis.

### Simple Constipation

Simple constipation would be devoid of interest if it were not frequently the prelude of more serious trouble. At first, one simply suppresses defecation. Then, constipation becomes a habit, which it is more and

more difficult to overcome; it grows more obstinate and, finally, complications arise. Often, it remains latent and is well tolerated for a long time. The physician always must bear this in mind, for, many cases of dyspepsia observed among our soldiers have no other cause than this. The patient complains of abdominal pain, of distress and bloating after meals, sometimes of vomiting; his breath is fetid his tongue furred with a thick deposit



Dr. Marcel Labbé.

\*Translated from the French manuscript.

or, it may be, merely yellowish. Palpation of the colon, especially in the left iliac fossa, discloses the presence of hard accumulations. After the administration of a purgative, these symptoms are relieved and, if one is careful to secure free evacuation of the intestines, by means of laxatives, and insists upon certain precautions as to eating, the constipation will disappear and the dyspepsia be relieved.

#### **Spasmodic Constipation**

Spasmodic constipation constitutes an advanced degree. The intestine, irritated chronically by the retained ingesta, reacts with a permanent spasm. This form does not remain unnoticed. Aside from the dietetic symptoms that are associated with every form of constipation, it is manifested by pain. Always the patient complains of a sensation of heaviness and of pain in the colon, mainly in the left iliac fossa, sometimes on the right side, or as producing the sensation of a transverse bar. When palpating the left iliac fossa, one readily feels portions of the descending colon and of the sigmoid flexure that are hard and slightly painful. Sometimes, one feels the transverse colon like a taut rope. At times, there are accumulations of feces in the large intestine, sometimes the colon does not move at all, despite all purgatives and enemas given, so that the lumps in the colon must be explained as resulting from intestinal spasm. Defecation occurs but infrequently or it may take place daily, however, only in insufficient quantity. The feces are discharged in the form of hard balls, frequently enveloped in glairy mucus. Again, the feces may be of medium consistency, but, in small masses or in the form of thin ropes.

#### **Atonic Constipation**

In a considerable number of cases, one can not speak of intestinal spasm. Neither palpitation of the abdomen nor radioscopic examination disclose the presence of a spasmodic condition. The intestinal contents move slowly along the large intestine, from the cecum to its end, and may occasionally be arrested, very likely, either in the cecum or, more often, in the sigmoid flexure, or, also, in the rectum, but, without accumulating to any extent at any certain point, as seen in cases in which the lumen of the intestine is contracted. It

seems as though there were present especially a sluggishness of colonic contractions.

On palpation, the colon is not felt hard, bulging, tight or in the form of a tense rope, as in the preceding form. Rather, the colon is soft and flabby, sometimes it is thick, not dilated and ballooned, while distention through gas causes it to roll under the hands of the examiner, especially in the region of the cecum. The patient complains of distress and gas after meals and of vague abdominal discomfort and pain in the side. The pain is less severe than in the preceding form. It appears more particularly in the form of attacks of colic, to which this kind of constipation is liable to give rise.

Atonic constipation sometimes is seen in patients that otherwise are vigorous or, even, obese, but, have lost weight during the war and whose intestinal walls and abdominal girth have lost their former resistance.

We hardly ever encounter the classical type of atonic constipation that we were accustomed to see in times of peace; emaciated and debilitated patients, poorly developed, with flabby muscles, the abdomen at times protruding slightly in the hypogastric regions but showing under the influence of effort, an exaggerated protuberance of the flanks and a tendency to hernia, while the abdominal wall is flabby under palpation and there is general ptosis of the abdominal organs—these subjects were discarded in the selective-service examinations, on account of a feeble constitution. Still, they may occasionally be found among convalescents and among the men in the auxiliary service.

#### **Constipation With Intoxication**

Whether it be spasmodic or atonic in form, constipation may be complicated with symptoms of intoxication. These latter attacks occur irregularly or periodically and lead to denutrition and alteration of the general condition, at times so grave that one hardly feels justified in attributing it to the simple constipation. Nevertheless, a painstaking examination of the patient fails to disclose any other disease. The loss in strength may be so great as to render the man incapable of any service whatever and to cause him to be discharged. But, often the advisory board refuses to permit

a discharge on the plea of constipation; while the soldier, sent back to his company, drags his way from one hospital to the other. It is of interest, therefore, to be familiar with the serious forms of constipation. Here are two instances:

#### Two Cases of Atonic Constipation

The first, a mild case, is that of a private soldier, who, in good health before the war, for the first time had in October, 1914, an attack of gastroenteritis and, after that, experienced eight successive sudden evacuations, for the same reason. He was pale and somewhat emaciated. After meals, he complained of pain in the epigastrium and in the left hypogastrium, this lasting for two or three hours and, at times, being accompanied by regurgitation or by vomiting. He was constipated for periods of three or four days and then, either spontaneously or after a purgative, he voided feces composed of hard material with some glairy mucus or membranous shreds. During the first two days of the constipation, there was no pain, but, on the third day, he complained of malaise and of gastric pains which increased in vehemence, when vomiting set in. The ingestion of food, the patient declared, brought on pain and vomiting.

The urine during this period of constipation contained neither albumin nor glucose, nor urobilin, but, a slight decrease in the elimination of urea which may be as high as 7.6 percent.

The objective examination of the patient did not disclose an appreciable visceral lesion. The stomach was small, the liver was neither hypertrophied nor painful; the cecum was not sensitive; only the iliac colon seemed to be indurated and would roll under the fingers when palpated. Tuberculosis having been suspected in this patient, his lungs were subjected to a close examination, without, however, revealing any lesion.

The second case is that of a soldier who, after seventeen months at the front, was invalided on account of an attack of appendicitis. A second attack having occurred three months later, the patient was operated upon in September, 1916. Since that time, the patient suffered from obstinate constipation. He was emaciated, pale, had lost strength and had a cachectic appearance. Unable, for some time, to

take part in the regular service, he was sent to the hospital, for observation.

The patient was a thin man (height, 1 meter, 65 cm.; weight, 50 kilograms), his face pale and ashen. He complained of obstinate constipation, of various digestive disturbances, and lack of appetite; was troubled by nausea, sometimes vomiting, and said he could not eat meat. Nevertheless, an examination of the abdominal organs did not furnish the explanation of this cachexia. The abdomen was slightly distended, its muscular walls were little resistant, the large intestine was sensitive to the touch, but, it did not seem to be thickened, and, in the region of the cicatrix of the appendectomy, there did not seem to be any serious adhesions. The liver was small and lungs and heart did not suggest any appreciable lesion; the urine did not contain any abnormal constituents.

But, the constipation was obstinate and did not yield to any of the measures employed. Daily enemas did not always cause the discharge of fecal matters, and the patient did not pass feces more than once in five to seven days, and then they consisted of very hard balls, sometimes dark-colored, then again, whitish, hard like stone and broken up only with difficulty; in a word, true coproliths. They were accompanied by a little blood and by some glairy matter and sometimes could be expelled only with considerable effort on the part of the patient, who even was obliged to remove these masses with the aid of a finger.

Radiological examination, undertaken after the ingestion of bismuth and after a bismuth enema, revealed neither constriction of the intestine nor any adhesions. The only thing discovered was a slight bend above the cecum, on the outer aspect of the ascending colon. Examination of the feces proved that the foods were well utilized, no soluble albumin or blood being present.

The evolution of the digestive troubles was almost cyclical and stood in relation to the constipation as follows: during the first days, the patient would feel fairly well and have a satisfactory appetite, there being only a general condition of malaise and a furry coating of the tongue; in the course of a few days, however, the malaise would increase and digestive troubles make their appearance, including pain, bloating, anorexia, vomiting. A uranalysis undertaken

during three consecutive days near the end of the constipation gave the following results:

		Urine Mills	Urea Gram	Amm. Gram	Ureogenic coefficient pr. 100
24 Sept.	4th day of the constipation.....	300	8,25	0,24	4,7
25 Sept.	Feces obtained by enema.....	400	16	0,28	3
26 Sept.	No feces .....	1,200	16,8	0,26	2

Thus the copremia resulting from the constipation is accompanied by a deranged metabolism and nutrition, as characterized by oliguria, retention of urea and a deficiency in urea elimination. At the same time, there appear in the urine some traces of urobilin, but, neither albuminuria, glycosuria nor acetonuria are present.

This deranged metabolism is the only objective symptom that I have been able to discover in my repeated examinations. It alone can afford us a reason for the failing strength of this patient, and it forced me to admit that he did not exaggerate, as there had been a tendency to assume after the first examination, but, actually was ill.

#### What These Two Cases Teach

As will be seen from these two instances, the toxicosis, in the course of the constipation, presents different degrees. Its beginning is insidious. For long, the patient already has experienced a condition of constipation, either moderate or severe, but, well tolerated; then, gradually, in consequence of attacks of intoxication, there occurred an alteration in the general condition. During the first two or three days of the fecal retention, a patient about to experience a toxic explosion hardly suffers and digests his food fairly well. Then malaise makes its appearance, the appetite becomes poor, the mouth bitter, a condition of nausea supervenes, vomiting either of food or of bile not infrequently takes place; sometimes there is a slight elevation of temperature, perhaps up to 38 C°, rarely attaining to 39 C°. The abdomen is bloated, slightly painful, especially on palpating the large intestine; but, these intestinal phenomena frequently are of slight import, it being the toxic syndrome that dominates the scene.

At the end of the period of constipation, the quantity of ammonia in the urine often shows an excess, and the production of urea is low, referring the effect of the intestinal intoxication to the liver. In our first specimen, it amounted to 7.6. In the second, it was increased, from 2, to 4.7. Finally, in a third case, observed since then, it was increased, from 4.4 to 8 and 8.5 at

the end of a period of constipation that lasted six days. After several days, either spontaneously or in consequence of a pur-

gative or an enema, a change takes place; the patient expels hard ball-like feces, accompanied by glairy material and membranous shreds and sometimes by a little blood. This expulsion of the feces often is accompanied by pain, is followed by a lessening of the general malaise and by a return of the appetite. However, it leaves the patient a little lower each time than he was before.

If the toxic constipation has lasted for a long time, the systemic deterioration becomes marked. The patient becomes emaciated slowly, progressively, and irremediably. Nothing will arrest it, no regimen nor medicaments aid or succeed in arresting this progressive denutrition. The skin is pale, the complexion dirty and ashen emitting, sometimes, a bad odor.

The weakness progresses and is accompanied by a permanent general malaise. Headache is almost constant. The extremities are cold, even though the forehead may be burning. There is no appetite, the tongue is dirty, the breath fetid, the liver is small. The abdomen usually is bloated, tense, painful, especially on the left, where one can clearly feel the ballooned cecum and sigmoid flexure. At other times, the abdomen is flat, the intestine soft, without resistance to the palpating fingers. The accumulated scybala can be felt in the sigmoid flexure, the cecum is dilated and atonic and producing splashing and gurgling sounds.

Radioscopic examination discloses that the intestinal canal is neither obstructed nor contracted; still, the passage of the contents through the large intestine is very slow.

Thus, the objective examination of the patient does not disclose in the abdomen any grave lesion that will explain the profound alteration of the general condition. It all amounts to a nutritional disturbance, the origin of which is shown to lie in an intestinal autointoxication, not only by alternating toxic attacks corresponding to periods of constipation, but, also, by abnormal chemical elements in the urine. The point to be remembered, above all, is, that

such a coprostasis will give rise to a progressive denutrition and may lead to a state of incurable cachexia.

#### **Constipation with Irritation. Colitis and Pericolitis**

Prolonged constipation produces an irritation of the intestinal mucous membrane, and leads to inflammation and colitis or which, passing even beyond the intestinal wall, may give rise to peritoneal reactions and give rise to pericolitis.

The colitis is especially frequent in the lower portion of the large intestine, where it manifests itself, although not always, by the discharge of some glairy matter tinged with blood, that adheres to the surface of the hard fecal masses. It frequently affects the iliac colon, where it may give rise to pain in the left flank and to a slight induration of the intestinal wall. When it is more severe, sigmoiditis may be manifested by false diarrhea, that is to say, by frequent defecation, repeated several times during the day, and consisting of a serous liquid of yellow or brownish color and mixed with a glairy matter, while, nevertheless, the intestine remains filled with scybalæ that are easily perceptible to the touch.

The inflammation may involve the cecum, giving rise to the symptoms of the well-known stercoral typhilitis of the older authors. These attacks are painful and accompanied by fever and are recognized by the formation of a cecal lump due to the thickening intestine being filled by accumulation of feces. Sometimes the cecal stasis is accompanied by stercoremia and toxic attacks, or, it may be initiated by symptoms of intestinal obstruction. Or, also, it may arouse peritoneal disturbances and produce a syndrome that may be mistaken for appendicitis. In the interval between the inflammatory attacks, chronic typhilitis is recognized by alternating constipation and diarrhea, the explosion of soft, pasty, glairy and fetid, badly digested feces, accompanied by a continued sensation of heaviness or of pain in the right iliac fossa while the cecum is hard, tense, and sensitive and rolls under the fingers during palpation.

The diagnosis of pericolitis is difficult. In its clinical picture, there are, outside of the constipation, only signs of peritoneal irritation, first among which is the pain. This latter is continuous, dull, increased

by marching, by shaking, by traveling in a wagon, by abdominal palpation, by movements of the intestine in consequence of it. It is located in the flanks or in the iliac fossa on the right or left side, according to the predominant localization.

Most frequently, it is a perisigmoiditis or a peritonitis that one has to deal with. The irradiations, depending upon the localization of the peritoneal adhesion-bands, occur, sometimes toward the right hypogastrium, where they cause one to suspect a hepatic infection, sometimes toward the region of the spleen, sometimes toward the bladder, or the rectum.

Palpation of the abdomen causes pain. The intestine is found to be hard, thickened, tense, like a cord or like a string of chestnuts. Sometimes they contain hard lumps, which a purgative or an enema causes to disappear. Sometimes, though, that which one takes for scybalæ is nothing but the indurated and contracted intestine. In that case, purgatives and enemas do not produce any change in the appearance. Sometimes the intestinal coils seem to be agglomerated, fixed by adhesions, while induration of the peritoneum is shown by a diffuse resistance under palpation and, at the same time, by slight dullness when percussing. Finally, there are cases when palpation elicits absolutely nothing abnormal.

Very deep palpation, repeated shaking, violent purgation, in fact, everything that excites the intestinal movement is capable of inducing an attack of pain and leading to prolonged suffering. During the slow evolution of the disease, there are interspersed attacks of pain, of intestinal obstruction or of localized febrile peritonitis. Sometimes there is vomiting, often abdominal tympanitis, but, no ascites.

Radioscopic examination furnishes, in certain cases, information of great importance for the diagnosis. It makes it possible to locate exactly the seat of the pain in a given section of the colon. Sometimes it shows the coherent intestinal coils crowded in one point or in a larger segment in form of a gun-barrel, impossible to differentiate by palpation, adhesions with contiguous organs, an abnormal fixity of a portion of the large intestine and an exaggerated seam in the regions of the flexures of the colon, more rarely a contraction at a certain point or, more of-



ten, of an entire segment of the intestine, across which the bismuth advances only with difficulty, after having accumulated in its passage upward.

It is not necessary, though, always to find in the x-rays the keys to the diagnosis. Very often, this test discloses nothing abnormal, the penetrability of the intestine being sufficient and no adhesions being evident.

It is the following facts that lead to the diagnosis of pericolicitis: (1) Signs of perintestinal irritation (continuous and increased pain, digestive distress without definite characterization, some induration of the peritoneum around the intestine); (2) the absence of signs of intraintestinal inflammation (feces well digested, with but little mucus and containing no soluble albumin nor blood); (3) the constipation.

The diagnosis is completed by means of an operation that shows thickening of the peritoneum in the form of a pearl-like or reddish membranous veil that envelops the gut; or also, bands of greater or less thickness that connect the intestinal coils. This diagnosis often is a very difficult one. It is not infrequent that one fails to recognize peritonitis, it being mistaken for tuberculous peritonitis; or one may even take an intestinal tuberculosis for simple pericolicitis.

However, it may be asked whether tuberculosis is not capable of producing localized pericolicitis in like manner as it causes dry pleurisy with adhesions; and whether the constipation is not simply the consequence of the contraction of the intestine, resulting from the pericolicitis. If this is possible, it does not at all exclude the existence of pericolicitis from constipation. In my experience, a long period of constipation preceded the appearance of the pericolicitis, and absence of visceral lesion permitted the affirmation that the patient had a tuberculosis infection.

#### The Treatment

The gravity of certain forms of constipation, whether toxic or inflammatory, shows that this affection must not be neglected and that treatment must be instituted from the very beginning, before complications can develop. The preventive treatment consists, above all, in regulating the diet, which must not contain too much meat nor too much of spices, and which must consist of a suitable proportion of

vegetables and of fruits rich in cellulose. Whole bread, bread made with flour rich in bran, such as we are eating at the present time, is a good antidote for constipation. Regular habits about defecation inculcated from childhood up, numerous water-closets installed in a practical manner and properly maintained count among the indispensable measures of general hygiene. As for our soldiers, it is necessary to procure for them as much as possible of vegetable foods and fruits, either dry or fresh, and to provide as many privies as possible.

The curative treatment varies according to the form of the malady. In simple constipation, it is especially the little aids that cause no irritation that must be employed. The ingestion, during meals, of agar-agar, some psyllum-seed<sup>1</sup> or linseed, the ingestion, during the morning-fast or at least before meals, of olive-oil or, still, better, of petrolatum. All these give excellent results.

However, everyone has his personal preferred remedy. A glass of water in the morning, fresh fruit, orange, apple or grapes at breakfast, a potato for a first meal or, maybe, the morning-cigarette or pipe. I have known one person for whom ten grains of bismuth, taken in the morning, constituted the only effective laxative.

Suppositories, enemas of hot water, or oil, or emollient substances (linseed, marshmallow) are counted among the useful harmless remedies. Hertz criticizes the glycerin-enema that is so dear to the hospitals of the Assistance Publique de Paris, but, which, according to him, is without virtue. Among the laxatives, castor-oil is most to be recommended, as being least irritant. One may use, with due precaution, podophyllin cuscutoin, alum, cascara sagrada, and so forth; but, they must not be continued indefinitely, for, eventually, they irritate the intestine.

Saline purgatives, sodium sulphate, magnesium sulphate and citrate of magnesia have the disadvantage of eventually causing constipation. However, calcined magnesia and the laxative salines, when given in small doses over long periods, succeed admirably in some persons.

A teaspoonful of a mixture of equal parts of sodium sulphate, sodium citrate, and sodium bicarbonate, taken in a cupful of

<sup>1</sup>A seed yielding much mucilage, similar to quince-seed.

a hot infusion of couch-grass in the morning, for twenty to fifty days in succession, as a rule, gives good results.

If the spasmodic element dominates, one should attempt to quiet the intestine by means of belladonna and valerian. If, on the contrary, intestinal atony predominates, treatment with strychnine, the glycerophosphates or adrenal-extract is indicated.

In toxic constipation, a vegetarian diet must form the basis of treatment. Eggs, milk, and meat are forbidden, as these might increase the toxic symptoms. However, the physician must not be too strict about the dietetic restrictions, for fear of reducing too greatly the alimentation, and thus only make worse the constipation as well as the denutrition.

Contrariwise, in one case of this kind, I secured improvement by removing all restrictions and permitting the patient to stuff himself with food to his liking. Ordinarily, a vegetarian regimen is best, but, on condition that the patient gets sufficient vegetables and fruits for full nutrition—something hardly possible in these war-times.

Intestinal disinfection must be secured by the alternate use of bouillon of lactic and perilactic bacilli, and of calomel, preparations of benzonaphtol, betol, and naphthol.

Hepatic extracts and biliary extracts are

useful in exciting simultaneously the hepatic functions, which are slightly deranged in this form of constipation, as are also the intestinal functions.

Castor-oil and laxatives saline, in small doses, are of use. Copious intestinal flushings are employed, for the purpose of emptying the intestine mechanically and in order to disinfect it.

In inflammatory constipation, the diet must be nonirritant and not leave too much residue.

In the course of the peritonitic attacks, thick milk or vegetable soups, farinaceous purees, and fruit-marmalades alone are permitted. Purgatives that irritate the intestine or provoke spasm must be employed only in moderate doses. As a rule, castor-oil is tolerated best. Lukewarm, emollient enemas, administered under slight pressure, are best for cleaning out the bowel. Hot applications on the abdomen exercise a good, calming influence.

It is in this form of inveterate constipation, when it is accompanied by progressive denutrition, that surgery must be called upon to assist. Generally, section of the peritoneal bands or of the false membranes is insufficient, for, these will form again. It is necessary to resort to enteroanastomosis that will make it possible for the feces to reestablish their regular course in the large intestine.

## Is Opium the "Sheet-Anchor of Treatment"?

By THOS. S. BLAIR, M. D., Harrisburg, Pennsylvania

Chief of Bureau of Drug-Control, Pennsylvania Department of Health

THE sheet-anchor, according to the "Standard Dictionary," is "one of two anchors usually carried outside the waist of a ship and supported on shores: intended for use only in emergency." The sheet-anchor was, formerly, the largest anchor carried by a ship; but, so many special devices for anchoring a vessel have been devised that the sheet-anchor has lost its former prestige. Hence, my assertion, that "opium is the sheet-anchor of treatment," is a statement of fact; for, there is no doubt that, as an emergency-remedy, opium, together with its derivatives, makes the poppy the most necessary, Class A-botanic drug in existence—the sheet-

anchor, "intended for use only in emergency."

Yet, this expression, so universally used by physicians, I venture to say, is understood by few of them in the sense obviously meant by the author of the phrase, which was introduced during the therapeutic period when opium was regarded as almost wholly an emergency-remedy; for, the uses and alleged uses of opium and its derivatives have been so extended that, in the view of many, these agents are not only emergency-remedies, but, are routine ones as well.

Ships still carry sheet-anchors, but, the emergencies are met in so many special

and efficient ways by modern devices that the sheet-anchor now is but little employed, except on poorly equipped vessels. And, opium still is the sheet-anchor of treatment in meeting emergencies, especially by the poorly equipped physician; for, modern technic meets *most* emergencies more efficiently than do opium and its educts and derivatives.

Data collected in this bureau, relating wholly to Pennsylvania and based upon legal records of the actual purchases of narcotics by the professional people of the state and dispensed on prescriptions, show that one-third of the physicians and dentists are responsible for ninety percent of the narcotic drugs issued through professional channels.

#### Opiate-Statistics for Pennsylvania

As the average annual amount of morphine per physician, counting dispensing and prescriptions both of legitimate and illegitimate character, is slightly over 2 ounces per year, the better-qualified two-thirds of the physicians are, each, credited with only  $\frac{1}{3}$  of a troy ounce per year, while the less trained one-third are, each of them, credited with nearly 6 ounces a year.

These striking facts—for, they are facts based upon actual legal reports rendered—show that the better-qualified physicians are not heavy prescribers of morphine in their respective practices; for, they employ only about  $\frac{1}{2}$  grain a day—a most creditable showing. When we remember that this use covers cancerous and other incurable cases, it is clear that the better two-thirds of the profession in Pennsylvania do not constitute a problem as regards morphine-addiction.

What of the other one-third that employ 90 percent of the morphine accounted for in professional channels? Their showing is: 6 ounces per physician in a year, or, nearly 8 grains a day—sixteen times as much as that prescribed by the better men.

An analysis of this one-third of the profession shows that seven out of eight of them are *not* catering to drug-addiction, but, that they are employing fairly large quantities of morphine in good faith. The record of this seven-eighths of the less-qualified men is below 6 ounces per year; it is, probably—we do not have separate figures—about 3 ounces a year, for, they are merely using morphine unwisely and are

not advisedly catering to drug-addiction. More concerning these men further on.

But, the one-eighth of the less-qualified third of the profession *are catering to addiction*, more or less in bad faith. Our records here show that about 490 physicians in practice in Pennsylvania constitute our whole physician's-problem.

Now take 8 hypothetical men catering to addiction and making unwise use of morphine, the whole 8 averaging, each, 6 ounces of morphine a year, but, 7 out of the 8 averaging only 3 ounces a year (largely through unwise use) what is the one man (the eighth one) doing?

#### Vicious Prescribing of Opium

As the whole 8 are using a total of 48 ounces a year, but, 7 of them are using only 21 ounces of the whole, the eighth man is using the remainder, or 27 ounces a year— $2\frac{3}{4}$  ounces a month, or 36 grains a day. Now, remember that there are about 490 physicians in Pennsylvania averaging that amount, or that there were during the six-months' time (February to July, inclusive, 1919),—on which these actual records were based. Of these 490 physicians, the highest individual record was an average of  $15\frac{1}{3}$  ounces of morphine a month, or 184 ounces in a year. Think of it!

Of course, this is the one most-extreme instance, and his case was duly attended to; while the rest range down from these figures rather rapidly, only about 150 men constituting the vicious element in the profession, out of nearly 12,000 physicians registered in the state. Only 1 vicious "dope-doctor" in 80! This speaks well for the profession at large.

It is "up to" the authorities and the overwhelmingly large reputable element in the profession to "get" these 150 men. The rest of the 490 are being rapidly "shown", and there is every hope for their reformation; but, about 150 seem to be beyond reform, and quite a large proportion of them are, themselves, drug-addicts. Quite a number of them have been apprehended by the federal and state authorities, and evidence is accumulating against many more. Some are getting out of this state.

To get the figures with regard to opium in Pennsylvania, *multiply* the morphine-figures by three. In Pennsylvania, the cocaine-menace has largely come under control; and, if the morphine-figures are *divided* by four, the cocaine-situation will be

depicted fairly accurately, so far as professional traffic is involved.

Now let us discuss the several classes of physicians instanced in what has preceded.

#### **The Goats and the Lambs Separated**

First, the capable two-thirds of the profession, or, rather, the MORE *capable* two-thirds—for, it is hard to draw a distinct line, on one side, the capable, and, on the other, the incapable. The matter is purely relative and is used here for convenience; for, in our work, we find about one-third of the Pennsylvania profession using narcotics at least unwisely, as judged by the teachings of standard textbooks, not, from any extreme or so-called propaganda point of view. We are trying to be no mere propagandists or beaureaucratic regulators, for, we are physicians and make every allowance for difficult conditions encountered in practice. We know from experience what they are.

At least two-thirds of the profession are modern practitioners, either young or keeping abreast of the times. They know the uses as well as the limitations of drugs; they have adopted modern diagnostic measures; they either do laboratory-work or have it done; they realize fully the sphere of surgery and of the specialties; they are keen to learn efficient technic; they know how to meet emergencies, or most of them, by means other than by administering narcotics; and these men regard opium, with its alkaloids, as their sheet-anchor, to be resorted to in emergencies in which other emergency-measures fail.

#### **Those Who Prescribe Scientifically**

These physicians are seeking for remedies specifically meeting definitely diagnosed pathology, whether the remedy be a drug, a serum, a vaccine or surgical intervention. But, they know that specific remedies are few, and, so, they stress case-management in the run of practice, regarding the administration of symptomatic medication as only a *part* of case-management, and, often, the least important part. They know from experience and from reading that the narcotics *cure* no condition having a definite pathology, and they regard the administration of narcotics as emergency symptomatic medication, to meet violent pain and spasm, certain surgical and traumatic emergencies, acute inflammation of serous membranes, aggravated dyspnea, cases of pneumonia and typhoid fever with

talkative delirium and in which the patient simply *must* have sleep, inoperable cancer, and so on. They know that, in certain aggravated conditions, the *temporary* use of a narcotic is lifesaving, even though it is not specifically curative; and, thus, they prescribe narcotics conservatively and scientifically, ever keeping in view the associated danger of addiction. No law interferes with such practice, and these physicians no more think of supplying to a patient at one time 200 morphine pills than they do of giving an equal number of calomel tablets or aconitine granules.

When these men are consulted by, say, a "bladder-patient", they analyze the urine, employ the cystoscope, and so forth, and reach a definite diagnosis. They do not call it "cystitis" and "let it go at that", puttering with the case and finally making a drug-addict of the unrelieved patient, because the only resource they have left to them is, to give morphine or opium. But, these physicians of whom I speak are "on the job" and they *know* their work; they make of narcotics a blessing to the sick and injured, helping the poor sufferers over the hard places. May their tribe increase!

#### **Those Reckless Prescribers**

And now, what of the one-third of the profession who are using nine-tenths of the narcotics supplied through professional channels? Here is a tender spot. Yet, we must face conditions as they are, and we can not afford to ignore the sore spot once uncovered. If a ship has only a sheet-anchor, it is "up to" the master of the ship newly to equip his vessel and make it safe for his passengers. The authorities will not give him clearance-papers if his ship lacks proper anchors, while no crew would sail with him.

The pharmacists of Pennsylvania fill nearly 2½ millions of narcotic prescriptions in a year, and the physicians of the state dispense as much as the pharmacists supply on prescription. It takes the entire working-time of two clerks in this office to check up and tabulate the large numbers of reports received, that cover this matter. About one-half of the narcotics-prescriptions are for morphine, and the prescriptions average 2½ grains each.

The great proportion of these prescriptions are for persons actually ill, are issued in good faith, and very many, indeed, are perfectly legitimate; still, a very large

proportion are issued unwisely and not in accordance with the teachings of standard textbooks. Yet, the good-faith prescriptions, so far as the *total amount* of morphine called for is concerned, account for only one-half of the morphine prescribed; for, the addict-prescriptions average about 30 grains each, and such prescriptions, although relatively few in number, account for the other half of the drug-volume in the prescriptions for morphine as issued by physicians.

This is a startling fact and reveals a condition that is indefensible. Our records show that about 80 percent of addiction in Pennsylvania is caused by the unwise and illegitimate supplying of narcotics by physicians. I am exceedingly sorry to be obliged to make this statement; but, our card-files of drug-addicts are no mere approximation; for, the data are very carefully collected and as carefully checked off and tabulated, and they are based on clinical reports regarding each individual listed. This list is secret and is carefully guarded from publicity.

#### Consumption in Different Countries

A U. S. Government report shows the annual per-capita consumption of opium, figuring all educts and derivatives on an opium-basis, to be 3/5 of a grain in Austria, 1 grain in Italy, 2 grains in Germany, 3 grains in France, and 36 grains in the United States. Our estimate in Pennsylvania is 32 grains per capita, and our figures show two-thirds of this supplied through professional channels and the rest used in patent and proprietary remedies and smuggled and other illicit pedler-supplies. This, however, is not a fair presentation of the pedler traffic, for, a large amount collected and trafficked in by pedlers is secured by them from certain physicians and dentists, who shamelessly exploit the "easy" physician and dentist, and, occasionally, the veterinarian and nurse.

This is a serious state of affairs, showing the per-capita consumption of opium in the United States to be 17 times as great as it is in Europe; and, as about two-thirds of this opium goes through professional channels, the physicians in the United States are using in practice, legitimately and illegitimately, wisely and unwisely, 11 times as much opium per patient as are their colleagues in Europe, and, in Pennsylvania, about 10 times as much. Evidently the sheet-anchor-idea is being overworked here.

I have shown, as based on the actual reports coming into this Pennsylvania bureau, that one-third—the less-competent third—of the profession is responsible for these bad figures.

I know that these figures will be called in question by some physicians; however, they have been painstakingly arrived at on the basis of *actual importations* into the United States, checking off the small exportations against smuggled supplies, and on the basis of legal reports actually received in this Pennsylvania bureau. There is a possible margin of error, but, it can not be large.

#### The Plight of the "Backnumbers"

Now, to discuss the less-competent one-third of the profession. Our figures show that 7 out of 8 of them are not catering purposely to drug-addiction and are prescribing in good faith, yet, often, unwisely and not in accordance with the teachings of standard textbooks. Then, why are they using narcotics unwisely and are overworking the sheet-anchor-idea?

We check over records of all narcotic prescriptions and heavy purchases by physicians, sending a form-letter which courteously asks for clinical details; and by far the larger number of these letters go to physicians over fifty years of age. A few young men do overwork the sheet-anchor-idea; not many. It is a fact in our work that nearly all of the physicians to whom we must send warnings after receiving an unsatisfactory reply to a form-letter are men fifty years of age or over, and that those requiring last-resort legal action are almost wholly men of middle or advanced age.

Men of this age received their medical educations before any narcotics-laws had been enacted; they were accustomed to entire freedom of action in prescribing as they willed, and many of them now resent what they feel to be an intrusion upon their proper prerogatives. When they were in medical school, the narcotics-menace was not stressed, and narcotics were freely sold as domestic remedies; so, it is a bit hard to impress upon these men that the matter is one that must *now* come under control. Many of them do not know how serious the menace has become.

Then, too, most of these older physicians have patients advanced in years and who have always kept the laudanum- or morphine-bottle handy for any and every occa-



sion, and now, that they can no longer purchase supplies themselves, they look to their old friend, the Doctor, to keep them supplied. There lies on my desk an illustration. A woman, aged and diseased, had her physician write for her in one month seven prescriptions, each for 1 dram of heroin; and the physician strenuously upholds her right to use, and his to prescribe, this colossal amount of this poison. She used to use other narcotics, but, liked heroin, and now consumes an amount of it that would kill many normal people. She probably will die suddenly one of these days; then, aside from the narcotics-laws, what will the coroner do about it?

Many of these older men had a poor medical education. That is not all their own fault, for, we know how defective most medical schools were only twenty years ago. So, these men, hosts of them, worthy and upright gentlemen, are physicians of small resource and do not employ modern diagnostic methods and technic and who rely almost wholly upon the use of drugs in treatment.

We must also remember that many of the older men follow the textbooks used by them in their student-days; they do not understand the modern book that outlines diagnostic methods that are entirely beyond these oldtime doctors; they find, in these old books, narcotics recommended in a host of conditions in which the modern books condemn them, as, for instance, in peritonitis, tuberculosis, and chronic diarrhea. They don't know, many of them, how to diagnose appendicitis and doubt the wisdom of its surgical treatment and, so, they prescribe morphine in its treatment. And so it goes.

#### **Pitiable Ignorance**

One can not but respect many of these men for their good qualities, their kind hearts, their devotion to their patients; and it is a fact that many of them have long struggled against adversity and have "hard sledding" generally. They are poor financially, have many obligations to meet, can not afford to take postgraduate work or renew their libraries; so, they drift along, fail to compete successfully with younger and better-equipped men, get out of touch with the medical age, and gradually drift, more and more, into giving narcotics, thus making a great many new addicts, as well as keeping up old addictions.

The very virtues of these men make them err on the narcotic side, as they are of

large sympathy and readily believe the lies told them by addicts that consult them. I wish that some of these older doctors could hear what certain addicts say about them and how they "worked" the poor old gentlemen. When we write kindly letters to these physicians, giving actual facts, half the time they do not believe us.

A strange thing in these reports, that we must fairly wring from some of these good old doctors, is, that probably half of their addicts are aged people who, of course, are more or less diseased; while the other half have diseases assigned to them, probably in good faith, so far as the doctor is, himself, concerned. But, disinterested investigation shows that the "neuralgia"-diagnosis is based wholly upon the statement of the patient; that the "sciatica", "lumbago" or other diagnosis is equally flimsy; that the "female trouble," after actual examination, fails to materialize; that the "syphilis"-case is one in which the victim never received modern treatment while seriously in need of it, instead of morphine; that the "chronic-diarrhea" patient merely has the diarrhea common to addicts whose supply is irregular; that the "cancer"-cases are, many of them, not malignant trouble at all, and that the case described as "incurable" is commonly what the doctor regards as incurable addiction.

The country has many physicians who do not understand at all the modern treatment of genitourinary diseases, or even of tuberculosis. All cases of "rheumatism" look alike to them, and focal infection is to them a very vague term. They have no microscopes, do not understand laboratory-diagnosis, can not interpret an x-ray plate, never employ the Wassermann test, fail out in surgical diagnosis, never make blood-tests, can not make a modern uranalysis, can not take the blood pressure accurately, know little about the differential diagnosis of cardiac murmurs, and, withall, ridicule modern pharmacology.

And the country is also full of human wreckage whose diseases never were accurately diagnosed or effectively treated—poor creatures, many advanced in years and infirmities, who are monuments to our defective method of handling the sickness-problem and keeping the doctors and dentists abreast the age.

These are the doctors and the patients who constitute a narcotics-problem—a great

big problem hard to handle, with a certain legal side, but, a much larger *human* side. How shall we meet it, both firmly and humanely? Here, in this office, we regard it as a problem in public-health administration. We are trying to eliminate unwise prescribing, even though done in good faith; for, we realize that, while the drug-pedler-traffic is an important factor, the medical one is far greater; for, defective physicians are, in our experience, making far more drug-addicts than are the underworld and the pedlers, large though this latter menace has been and is today.

It is a slow job, for, defective doctors and the addicts have to be hand-picked and individually worked over. The prostitute and drug-pedler are a great factor in the large cities, but, the unwise and even the vicious prescriber is scattered all over the country. All of these are keeping up drug-addiction and making new addicts galore, and most of them justify themselves in their own eyes.

#### **The Greatest Reason for Opium-Prescribing**

And, perhaps, one of the greatest reasons for the large amount of narcotics prescribed by physicians is the fact that the addict is a very hard case to handle, even in a special institution. What, then, can be expected of the private practitioner who undertakes the ambulatory reduction-treatment? Some succeed; most of them do not.

A national committee of which I am a member has had drafted and introduced into Congress a bill (Senate, 2785) sponsored by Senator France, himself a physician, which aims to provide hospital-care for drug-addicts all over the union. It has met the approval of the U. S. Public Health Service and the Internal Revenue Service, and has been referred to the Committee on Public Health and National Quarantine. We hope that it will pass. If it does, the bureau with which I am connected will be in a position to stop so much sheet-anchor abuse. And it can also then be stopped all over the Union. Without this support, we are gradually stopping a vast deal of it, being as kindly and considerate as we can, but, rather firmly upholding the federal and state laws.

As regards the vicious element in the profession, fortunately small, we are inclined

to show little quarter; for, we owe it to the honorable medical profession to rid it completely and finally of these degenerate doctors. Certainly, we owe it to the country at large and to humanity.

This paper, however, has to deal more with unwise prescribing of narcotics than with the legal administration. The latter is half of my work, but, I am first of all a physician. Permit me, even though it be a bit egotistic, to say a few earnest personal words of advice to my professional brethren.

The narcotics-laws, the Treasury decisions thereon, the Internal Revenue rulings, the state regulations, and so forth, really are necessary, and they do not interfere with legitimate medical practice, even if they do impose reports and annoyance upon professional people. But, the federal and state authorities are determined to shut down on narcotics-abuses as a duty to the people, including reckless prescribing by physicians. It is the duty of the profession to help in this reform.

I can not be charged with bureaucratic tendencies in this work; for, I have practiced medicine for thirty years and written three more or less useful books on materia medica and therapeutics. The writing of these books did more good to the author than they ever did to any reader, for, I believe they taught me how to use drugs without doing unnecessary damage. Added to careful study of diagnosis and case-management, the special study of materia medica taught me how to practice with the very minimum employment of narcotics. But, I keep that sheet-anchor always ready, and it is being used as a sheet-anchor is meant to be used, *exclusively in emergency*; and I do not believe that I can be charged with failure as a practitioner.

Doctor, first study diagnosis very much in detail; then study case-management, and, lastly, study intensively materia medica and therapeutics in no nihilistic way, and you not only will be a better and more flourishing practitioner, but, you will forget the sheet-anchor until after everything else has failed or the case is such that you know that these other measures must wait on morphine as the rationally indicated measure of choice.

# The Management of Influenza and Pneumonia

By BERNARD T. MALOY, M. D., LaGrange, Illinois

**I**N PRESENTING the following method of treating influenza and pneumonia, I do so in the belief that very encouraging results may be obtained, by any physician, from such treatment, provided, he attend to the little things that have to do with the diseases under consideration; and, further, that he endeavor to keep ever in mind the great value of personal attention to the patients. During the epidemic of 1918-'19 and while with the United States Public Health Service, I attended several hundred cases of influenza and pneumonia, without a death occurring. The usual number were pregnant women, but, all recovered quickly. The doses of remedies, named below, are those for adults.

## The Prompt Cleanout, Then the Antipyretic

On my first visit to the patient, I give calomel, veratrum viride, and aconite. The calomel tablet should be crushed and one-fourth grain given every half hour or hour, until the patient has taken as much as 2 to 2½ grains. If he appears very ill, I give the tablets every half hour. If he has taken another laxative before my arrival, I give the calomel, anyway. Experience has clearly demonstrated that, the better the elimination, the quicker do I obtain more favorable results. After six or eight hours, I give one or two heaping tablespoonfuls of epsom salt dissolved in a small amount of hot water and cooled. Unless the patient be very weak I make it a rule to have him sit upright during defecation. Until the saline acts freely, a good many patients may have a throbbing headache. While giving the calomel, I alternate the doses with a mixture continuing the following:

Tincturæ aconiti ..... min. 30 to 36  
Tincturæ veratri viridis..... drs. 2 to 2½  
Aquæ destillatæ, enough to make..... oz. 3  
Label: Use as directed.

Give a half teaspoonful of this mixture every half hour for from six to ten doses—the number of doses depending upon the height of the pyrexia. Following these

small doses, continue with teaspoonful-doses every two or three hours until the fever subsides and then lengthen the intervals between doses to six or eight hours. Continue the mixture, however, until you are certain that the fever has been checked. Be quite sure that your tinctures are made from the best fluid extracts, and from no other form of those drugs. There should occur but little, if any, precipitate.

## The Control of Pain

Even though the patient complains of severe pains, I give no anodyne in the beginning, and at no time do I give an opiate for the pain. Many pains disappear after the intestine has been thoroughly emptied by the calomel and salts. If pain persists after the bowel has been cleansed of offending material, I give the following:

Phenacetini ..... dr. 1  
Quininæ sulphatis ..... grs. 36  
Capsici pulveris..... grs. 1¼  
Camphoræ pulveris..... grs. 2 to 4  
Extracti belladonnæ pulveris..... grs. 1½  
Misce et fiat pulvis dividendus  
in capsulas No. 18.

Label: One capsule every three hours

In almost all cases of influenza, it is advisable to give some of these capsules. In a good many cases, it is well to have this prescription refilled, continuing the capsules until the patient is convalescent. The capsules of the second box may be given from four to six hours apart. As the patient improves, I give him one capsule every six or eight hours. At the end of six or seven days, I again effect elimination with the calomel and saline.

## Bridging the Crisis

During the crisis in pneumonia, I give a tablet containing nitroglycerin, digitalis, and strychnine, at first, by mouth. I dissolve one of the tablets in a teaspoonful of good brandy, to which the same quantity of sugar and water has been added. This tablet and brandy should be repeated every three or four hours if there be cyanosis or if the pulse is difficult to pick up. When the prostration is extreme, I give the tablet hypodermically every hour or two, until

the patient rallies. During this time, I endeavor to administer the brandy and sugar by pouring it slowly under the tongue while urging him to swallow. Shaking the patient or speaking loudly into his ear often will arouse him.

If the cough persists after three or four days have passed, I give an occasional dose of the following:

Codeinæ sulphatis.....	gr. 1½
Ammonii chloridi.....	gr. 15
Extracti glycyrrhizæ fluidi.....	drs. 3
Glycerini.....	oz. 1
Syrupi pruni virginianæ, enough to make.....	ozs. 3
During convalescence, I prescribe:	
Acidi arsenosi.....	gr. ¼ to ½
Syrupi hypophosphitum, compositi.....	drs. 3 to 4
Vini olei morrhue, to make.....	ozs. 8

Label: One tablespoonful at meal time.

I prescribe the foregoing as soon as the patient begins to eat fairly well.

#### Hints on the Diet

For nourishment, I order, during the first two or three days, hot rich soups and broths, plenty of butter, and coffee, if desired, but, no milk alone. Milk has not agreed with the majority of my patients that have had influenza and pneumonia.

When I am sure that the pyrexia is under control, I add, to the foregoing dietary, the juice of stewed fruits and the fruit itself. I also permit small quantities of solid food to be taken, even though he have no desire for food, when it can be determined that the patient is getting better. Nourishing the patient is of the greatest importance, and the foods mentioned, given within reason, even during the first days, will cause no ill effects. I strongly urge him to eat.

Give the medicine and nourishment regularly during the night, as well as during the day, and always arouse him for it, if need be. No time may be wasted while fighting these diseases, and although sleep is very essential he should be awakened for his medicine and nourishment, anyway. I endeavor to let the patient have nourishment several times during the twenty-four hours.

The patient's position should be changed every few hours and the head and neck kept well extended. Many persons have less difficulty in breathing and they cough less while lying on the side. While in that position the constant desire to swallow

with the attendant tickling of the fauces by saliva, usually followed by an exhaustive fit of coughing, is thereby eliminated to a great extent. Coughing is of little benefit to the patient, as you know, and I make it a point to impress all of them with that fact. The upper arm should be drawn back to a position of rest or used as a support to hold the shoulder back. When he perspires, I make no effort to check the sweating, although I insist upon keeping every part of his body covered, except the face; even his arms and hands should remain under cover and his back and neck should be covered when he turns to lie on one side.

I do not bathe him, change his body-garments, apply anything to the chest, or bother him in any manner until he is convalescent, except to arouse him for his medicine and food and change his position. I have found it better to have the air fresh at all times, still, always warm.

Where stoves are used, a brisk fire kept at a temperature which prevents the air from becoming chilled at any time during the day or night will help the doctor and the patient a hundredfold. Move the patient's bed into the dining room or the parlor, if necessary, in order to keep him close to heated fresh air. The ordinary bedroom is too small for a stove and in such a room it is difficult to ventilate without draughts passing directly over your patient. A warm blanket should cover the patient, and the same warm blanket should be wrapped around him when he gets up for any reason. Use no sheets or muslin gown that may chill his body. Give plenty of water to drink.

#### Some Practical Advice

If the patient be very ill, I make no effort to impress him with the seriousness of his condition, nor do I conceal the fact or deceive him in any manner. It is strange, though, how a patient is able to read the doctor's thoughts regardless of his words or facial expression; this is especially true, it seems, when the patient realizes that he is fighting pneumonia. I believe that frankness and firmness from the beginning inspires the patient with confidence in the doctor, and then he is more easily controlled when delirium appears.

I employ the common Shepard stethoscope with heavy tubing, and I press the bell firmly against the skin with my thumb-

nail; if the finger and thumb are used they may tend to move it or draw it away from the skin. By leaning over, I avoid touching the instrument, and I hold my breath during the time that I endeavor to locate sounds with it. This plan enables me to pick up many more sounds, and from a greater distance and more quickly, thus avoiding the annoyance to the patient of a long-drawn-out protracted examination. I use a bell with an outside diameter of about three-fourths of an inch. A larger bell bridges depressions between ribs and the finer sounds may not be heard unless the bell is in close contact with the skin at all points of its circumference. While making the examination I expose only a small part of the chest at one time.

A few words concerning the drugs that I use may not come amiss. Disregard many things found in textbooks concerning the action and dosage of *veratrum viride* and *aconite*, and use them together and in the dosage that I suggest. A careful reading of the literature on *aconite* and *veratrum viride* should make it clear that much may yet be learned about the two drugs, and that a great deal of the present day knowledge concerning them is merely conjectured. I am sure that you will be pleased and agreeably surprised at the results obtained using the two drugs combined in treating influenza and pneumonia.

Calomel has always been a very valuable drug—and one much abused. My exper-

ience leads me to the belief that those persons that are nauseated the most after taking calomel really need it the most.

#### Beware Pneumonia

Let me urge you to regard any moderately severe attack of influenza as a forerunner of pneumonia. Do not wait until pneumonia sets in, but, begin the outlined treatment at once. Last winter, in one town of 2,000 inhabitants, during a period of four weeks, the local physician lost nineteen pneumonia-patients, while my pneumonia-patients numbered only 6 during that same four weeks, and all recovered. This experience, together with others very similar, leads me to think that the treatment suggested above aborts many cases of pneumonia; for, it is only fair to add that, as a rule, the Government-physician attended a great many more patients during a given time than did the local physician, and he usually was called to attend those most desperately ill.

In conclusion, permit me to say that I have followed almost the same line of treatment for pneumonia as herein suggested for many years, with very few deaths to record. It is my firm belief that the combination of the two tinctures named is an excellent one and one of great value. If the suggestions offered in this paper be carefully followed, I am certain that very pleasing results will follow and the death rate of influenza and pneumonia will be greatly lowered.

## The Clinical Significance of Certain Cells Found in the Urinary Sediment

By B. G. R. WILLIAMS, M. D., Paris, Illinois

IT seems to me that an examination of the urine should mean something more than making two or three coarse chemical tests and a hasty search for casts; in fact, every urinalysis should be a diligent "urine" study. And, in this direction, I have particularly concerned myself with the various cells often found in the urinary sediments. For example: the physiological importance of the renal cell, forming, as it does, the ultimate unit of the secreting parenchyma, must be great, indeed. And yet upon reviewing the liter-

ature one must be struck with the lack of emphasis placed upon its discovery in a specimen.

About the time when man reaches the age of forty-five we should expect to find in his urine the occasional hyalin cast and the trace of albumin, as mentioned by Osler, and, with him, we would agree that such findings can not be taken as conclusive of nephritis. Nevertheless, the clinician talks albumin and casts, as in days of old, yet but rarely mentions the significance of the appearance of these cells,



when just a moment's reflection would impress upon him the fact that, after all, if they be present in number, free or in casts, they must be considered as proof of actual renal injury and that disease of the parenchyma exists. This must be regarded according to accepted principles, as an infallible indication of renal desquamation.

Claim has been made that only such epithelium as comes from the ducts may be identified in the urine and that those cells having their origin in the convoluted tubules, are so altered by their longer stay in the urine as to render identification highly improbable. Such an explanation is absolutely wrong, because the various cell-types may be identified many days after the sample has been voided, provided the urine has been kept sweet by preservatives.

During the lifetime of an individual, the secreting uriniferous tubule may account for but 8 drops of urine. In fact, such a tubule is very short, indeed, as compared with the remainder of the tract. In some instances, the renal cells are remarkably well preserved. Furthermore, the presence of pigmented renal cells found in bilirubinuria may be more easily explained by actual injury during secretion than by any action that might result from contact with the cuticulated types in the collecting tubules.

It has been suggested, by Fischer, that often there is an actual solution of the cement-substance (*membrana propria*), and the cells simply slip off into the lumina of the tubules. And, inasmuch as in some of the tubules there is as yet no damaging or stagnation of the urine, it is easy to understand how perfect secretory cells may be recovered and identified in the sediment.

Personally, I am not willing to accept the dictum that all of the nephritides are parenchymatous. I scarcely can dwell upon the ratiocinative aspects of this, except to say that, in certain cases, manifestly vascular or interstitial in type, there may occur toward the ending, veritable showers of well-preserved renal cells, even though there is not a simultaneous albuminuria and increase of casts. The most logical explanation is, that the pathological alterations of the stroma are almost completed, active inflammation has

ceased, and the connective-tissue is contracting. Hence, the uninvolved or but partially diseased secretory units are mechanically pushed off and float away in the urinary current.

To find casts, we use the lower-power objectives; although for proper identification of the renal cell higher powers are best. The presence of a few cells may be determined only by centrifugalization. The cells appear singly, in groups, free or in the cast-makeup. In severe tubular nephritis (scarlatina or mercury-poisoning), the entire lining of the tubules may be shed and, when collapsed, may be mistaken for epithelial casts.

#### Renal Cells Under the Microscope

Often the renal cell may be remarkably well preserved; in others, by virtue of pathological changes (or artifacts resulting from ammoniacal decomposition), some difficulty may attend the recognition. By virtue of disease, it may be degenerated, necrotic or fragmented. In fermented samples or in those highly acid by virtue of concentration and so forth, the cell may be swollen or shrunken. Other urinary findings must, therefore, be taken into consideration. Often there are fatty changes, and the use of specific stains may aid in the solution of the problem.

It scarcely is necessary to state that, where the examination can not be made as soon as the specimen is voided, the specimen should be preserved by a lump of thymol or camphor. In special cases, catheterization may aid, as cells from the lower tract are eliminated.

The iris-diaphragm is properly constricted to a twilight. Stained preparations I have not found satisfactory, because the drying and concentration of the salts give rise to artifacts.

In bilirubinuria, the cells rarely appear inanimate. They may be pigmented, but, nevertheless, are highly refractive, presenting a hyaline-like appearance.

In size, the cell from the uriniferous tubule approximates that of the pus-cell; approximates, I say, since it may be somewhat larger, although, in most instances, it is more nearly the size of the erythrocyte. The larger-sized ones more likely come from the larger ducts, renal pelvis or ureter. Differentiation between the renal cell and the pus-cell (leukocyte) should not be difficult. The former rarely is

granular; the latter usually is granular. If the former be granular, Sudan III (the dye) will give an orange-color and reveal some of the minute droplets to be fatty in character.

The renal cell is mononuclear, the nucleus being, as a rule, centrally situated; the pus-cell ordinarily is polymorphonuclear (a few drops of acetic acid will bring out these figures), and these nuclei are eccentrically situated. The nuclei of the pus-cell are irregular, while that of the renal cell is globular and clearcut. The renal cell has an epithelial appearance that can not be mistaken for the pus-cell. It appears as hyalin or as glass, and is quickly recognized by any one doing considerable microscopic work. The caution as to the use of higher powers should be repeated and emphasized, for, I have seen large collections of renal cells mistaken for pus. Always use a coverglass.

The term desquamative nephritis is not

a good one from a clinical standpoint, simply because we have more valuable classifications for the nephritides. I have shown above that renal cells may not be found in health, but, are present or may be present, sometimes, in almost any type of nephritis. Late in interstitial disease, their prognostic meaning is not good. I do not like to find them in any specimen of urine, because we know that renal cells are not regenerated, being lost forever.

These cells appearing over considerable periods of time should give more concern than do casts. They may be present for a few days during an acute nephritis, yet, the patient manages to live many years afterward; perhaps by virtue of the fact that their neighboring cells undergo compensatory hypertrophy and take upon themselves double duty. This is the explanation where one kidney is removed and the other continues to carry on.

## After Thirty Years—XX

### Notes and Reflections on Life and Work

By WILLIAM RITTENHOUSE, M. D., Chicago, Illinois

[Concluded from November issue, page 767].

#### Vitamines

WHEN the "Kronprinz Wilhelm" came to anchor in the harbor of Newport News, she was visited by numbers of health officers and experts, both national and local, all intensely interested in the strange disease that had laid low so many of her crew. The diagnoses that were offered varied, as stated in our previous article, from beri-beri, scurvy, and pellagra, to rheumatism and polyneuritis. The majority decided in favor of beri-beri due to eating polished rice, and this was the decision reported by the newspapers, although the men had eaten rice only once a week.

Mr. Alfred W. McCann, of New York, dietetic expert, maintained that the disease was neither beri-beri, pellagra nor scurvy, but an extreme acidosis, induced by a diet of acid-forming foods, lacking the vitamins and alkaline bases which are indispensable constituents of food if health is to be preserved. A condition of acidosis

produces absorption of the calcium salts (and others) of the body, leaving the tissues in an abnormal condition, with greatly diminished resistance to disease. It has been found that in tuberculosis this depletion of calcium salts is particularly marked.

Mr. McCann succeeded in convincing Doctor Perenon, the ship's surgeon, of the soundness of his conclusions. At the doctor's suggestion he marked out the following plan for combating the acidosis and restoring to the depleted bodies the vitamins, bases and colloids for the want of which the men were dying:

#### The Prescribed Dietary

"To 100 pounds of wheat bran add 200 pounds of water. Leach for twelve hours at 120° F. Drain off the liquor and give each man eight ounces of it each morning.

"Give each man one teaspoonful of wheat bran, morning and night, until contraindicated by loose stools.

"Boil cabbage, carrots, parsnips, spinach, onions, and turnips together for two hours.

Drain off the liquor. Discard the residuc. Feed the liquor as soup in generous quantities with unbuttered whole-wheat bread.

"Wash and peel potatoes. Discard the potatoes and boil the skins two hours. Give the liquor to the men to drink, four ounces a day.

"Give each man the yolks of four eggs a day in fresh, sweet, unskimmed, and unpasteurized milk, one egg-yolk every three hours with as much milk as he will drink by sipping.

"At noon, with dry whole-wheat bread, give one ounce of fresh roast beef.

"One hour before drinking milk, give juice of ripe oranges or lemon juice diluted with water, but, without sugar.

"Keep apples or apple sauce within reach of the men all the time.

"At the end of the first week, let the men eat the solids of the vegetable soup as well as the liquor.

"It is imperative that the men shall avoid all cheese, whites of eggs, butter, lard, fat of any kind, gravy, white bread, crackers, pastry, puddings, sugar, saccharine, mashed potatoes, salt meat, fish, polished rice, pearled barley, degerminated cornmeal."

It will be observed that no drugs are included in the prescription.

#### As to the Results

Now for the results. Let me state, in passing, that none of the officers had been stricken. Only limited amounts of fresh vegetables were found on the captured ships—little more than a taste if distributed among 500 men; so, these vegetables were reserved for the officers' table. While all the officers showed symptoms of anemia and mild acidosis, yet none of them were prostrated.

In the first four days after arrival, ten more cases of the trouble developed, making 120 in all.

On April 16, the treatment was begun. On the 17th, no new cases were reported. On the 18th, no new cases, while many of the more recent ones showed signs of improvement. The swelling of the ankles began to subside in eighteen cases, and the pain on pressure over the nerves was not so acute.

April 19, four men were so much improved that Doctor Perenon permitted them to go on deck. Many others showed signs of improvement.

April 20, fourteen men were able to leave

the ship's hospital, and return to their bunks.

April 21, eight men were dismissed from the hospital, and the next day eight more.

April 23, four more cases were pronounced out of danger.

April 24, seven more left the hospital, and Doctor Perenon reported: "The treatment is working miracles. Even the worst cases seem a little better and one of the paralyzed men can now stand on his feet without help. We have only 75 cases to-day, and 47 are so far advanced that we can safely say that they are cured."

Regarding his experience at sea he said: "We had many cases of pneumonia, pleurisy, and rheumatism among the men. They seemed to lose all resistance before the epidemic broke out. We had superficial wounds and cuts to deal with. They usually refused to heal for a long time. We had much hemorrhage. There were a number of accidents aboard, such as, fractures and dislocations. The broken bones were slow to mend. Nature was not doing her duty."

The same day, Doctor Perenon was forbidden by his superiors to make any further public statements but I am credibly informed that all the crew recovered. It would be interesting to know whether they showed more than the usual tendency to tuberculosis, later on, since tuberculous patients generally show a deficiency of lime salts.

#### The Lesson

The most important lesson to be drawn from this striking episode is this: *That the foods which we have been accustomed to regard as wholesome and nourishing, may be, and at the present day are, so prepared as to become a menace to health instead of maintaining it at high efficiency.* The vitamins, bases and colloids necessary to preserve health have been largely processed out of them. Fresh meat, bread, butter and potatoes are generally assumed to be life-sustaining foods. And so they are if in their natural condition. Meat loses much of its value if the alkaline bases in it are destroyed by overcooking. White bread has lost most of its best constituents by the removal of the germ and the bran, which contain the bases and colloids needed by the system. Butter would be a good food if it had been made by the old-fashioned process of churning sour cream; but,

nearly all the butter on the market has been deprived of its antiscorbutic properties by alkalizing and pasteurizing the cream from which it was made, and the resulting buttermilk is equally devitalized as a food. Yet, natural buttermilk is an excellent antiscorbutic. The vitamins in potatoes are found just under the skin, and when they are peeled in the usual manner the most valuable part is thrown away, the remainder, which is chiefly starch, being eaten.

In fact, almost every article of manufactured food today has been commercially manipulated and processed, either on the claim that it would not keep otherwise or for reasons of greater profit, until its food value has been seriously impaired or destroyed altogether.

The food upon which the crew of the "Kronprinz Wilhelm" lived, and which nearly cost them their lives, was the same as that which is generally eaten by the majority of the people of this country, with the one exception that it contained no fresh fruits and vegetables. The only reason why our population do not suffer in the same way, is that they eat in addition a certain amount of fresh fruits and vegetables which partially counteract the effects of the acid-forming foods that form the bulk of their diet. But, although we do not see such wholesale evidence of acidosis among the people, nevertheless they do suffer from acidosis to an extent that is serious, and all the more serious because it is seldom recognized as the cause of much rheumatism, neuralgia, neuritis, anemia and even tuberculosis. Most of the tissues of the body suffer when the calcium salts are dissolved out by a condition of acidosis. Muscles, nerves, ligaments, cartilages, all show a tendency to increased vascularity, accompanied by pain, tenderness, atrophy, and effusion into the joints.

The future of the race is involved because the acid-forming foods have a pernicious influence upon both the pregnant mother and the growing child. Children are born with enfeebled constitutions because their mothers were not properly fed, and, as they grow up, they suffer from the same diet of food that does not give them resistance to disease.

#### The Remedy

The reason, why so much of our food, has been deprived of its most important proper-

ties, is twofold: Namely, commercial greed and popular ignorance. The people demand *refined* foods; therefore, the manufacturers give them what they ask for, although it involves removing some of the most important ingredients. The manufacturers, also, in order to make foods keep longer, submit them to processes that make them less wholesome and even, in some cases, positively injurious. People want their bread to look white, so, the bran is removed. The miller claims that flour will not keep if the germ of the wheat is left in it; hence, between the two, bread as commonly eaten is a very poor food. In buying ham or bacon, many housekeepers insist on getting "mild cure", ignoring the fact that there is no *wholesome* substitute for the old-fashioned way of curing meat by means of salt and wood-smoke. The packer gives them what they ask for, with the result that much of the ham and bacon sold is unfit for human food. Some kinds of canned foods are devitalized by the extreme heat example, tomatoes, after being canned, are placed in a retort under high-pressure steam because they are hard to sterilize so that they will keep. Then, too, the acids in many fruits and vegetables attack the tin and iron of the cans causing the food to be more or less saturated with mineral salts and, thus, throwing extra work upon the kidneys. This is especially unfortunate in the case of the tomato because of its cheapness. It is to be hoped that some way of preserving it may be found that will not destroy its vitamins and will keep it free from mineral contamination from the can; for, in its natural state, it is an excellent antiscorbutic.

Fresh fruits and vegetables should be preferred whenever possible, yet, certain ones are fairly good when they are canned right.

Among the foods rich in vitamins are the following: Spinach, asparagus, cauliflower, lettuce, beets, cabbage, turnips, carrots, radishes, pumpkins, rhubarb, onions, string beans, lima beans, peas, celery, cucumbers, parsnips, dandelion, lentils, egg-plant, baked potatoes (in their skins), oranges, lemons, pineapples, strawberries, blackberries, raspberries, currants, blueberries, cranberries, apples, pears, peaches, plums, apricots, grapes, cherries, figs, dates, raisins, cantaloupe, watermelon, oatmeal, whole wheat, shredded wheat, peanuts, chestnuts, wal-

nuts, natural brown rice, milk (natural state), buttermilk.

Of course, it must be borne in mind that not all of these foods are good for everybody. Many of them would disagree with certain individuals, and each person must be guided by his own experience. The list is simply selective. Further, it should be remembered that, on boiling vegetables, the vitamins are lost to a great extent if the water in which they are boiled is thrown away. As far as practicable, it should be utilized for making soups, gravies and sauces.

Canned goods are in no respect quite equal to the fresh article and some varieties had better be avoided entirely. The better kinds are a great boon in carrying us through the season when the fresh article is not obtainable and in enabling us to enjoy the products of distant parts of the world that could not be transported long distances in their natural state. If glass containers were universally practicable, the situation would be ideal; however, there are certain fruits and vegetables that should never be canned in tin because of the action of their acids upon the metal base.

Mr. McCann's investigations lead to the conclusion that the foods most prone to be contaminated with salts of tin and iron to a serious degree are the following: rhubarb, pumpkin, beets, and fish to which vinegar has been added. Among those which show moderate contamination from the metal can are: apple-butter, asparagus, red sour cherries, strawberries, blackberries, gooseberries, raspberries, cranberries, stringbeans.

Among those comparatively free from metallic contamination are: apples, apricots, lima beans, sauerkraut, sardines in oil, pineapple, spinach, tuna, pears, peaches.

white cherries, black cherries, peas, ripe olives, hominy, corn.

No doubt, also, the longer canned foods have been kept, the greater is the liability to contamination, so that all the above mentioned foods would be quite safe in glass or lacquered tin.

No one can say to what extent devitalized foods are responsible for the increase in the prevalence of organic heart disease, hardening of the arteries, high blood pressure, cancer, diabetes, nephritis, and tuberculosis, but, those who have given the subject most study are agreed that the prevalence of these diseases is mainly due to this cause. The high deathrate among children also is no doubt due largely to the same cause. The public needs waking up to the idea *that the foods they chiefly eat are not what they suppose them to be, but that they have been robbed of their most vital ingredients.*

It is a pleasure to give credit to the National Canner's Association for the excellent work done by its members throughout the country, and to its Washington laboratory for improving the general quality of all canned goods. This oasis of intelligent self-interest in a desert of commercial greed is worthy of all praise.

While, no doubt, some legislation on the subject is needed, and while, perhaps, some that we have, needs to be repealed, still, after all, the one great need is, to educate the public. As we have seen, many foods are sold in a certain condition because the people in their ignorance demand them in that condition. Teaching the public is a slow process, but, it can be done by persistence in presenting sound ideas through the press, through lectures, and through the personal teaching of the family physician. In the long run, the people get what they demand.

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# The Scope of Antigen (Vaccine) Therapy

By W. M. CROFTON, M. D., Dublin, Ireland

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I WISH to maintain the thesis that there is no department of medical science that can afford to ignore the antigen-treatment, and to illustrate my contention by the description of cases successfully treated. In making such an assertion, I am much less modest than Sir A. Wright, who acknowledges want of success in cases with fever and in chronic infections. I assert that antigens are just as useful in such conditions as in any other of this class; although I acknowledge that in cases with chronic fever the desired result often can be more rapidly attained by a combination of immuno- and chemotherapy.

One is often asked how it is possible to cure acute generalized infections by means of injecting more of the causative poison. As to the fact, there can be no question. In these acute infections, one gets one's most dramatic results. Success or failure depends upon the condition of the patient's endothelial cells, those jealous guardians of the tissues. If these are, for the most part, intact, then the patient has tissues capable of being stimulated; if they are not, as in the hemorrhagic types of infections, no such response can be expected or obtained.

## The Meaning of Antigen

Before describing these cases, it is necessary to discuss some points about the method, since there is a tremendous lot of unscientific work being done under the guise of scientific procedure. It will be noticed that I have substituted, in the title of this paper, the term antigen for vaccine. I have done this, because antigen describes exactly what the method is; namely: the production of antibodies in the patient; while the term vaccine, quite suitably applied to smallpox-antigen—gives people the idea that therapeutic immunization in general is similar in method and involves, for instance, the production of an ulcerating sore.

## On Antigen Action

It may be stated at once that the number of different antigens to which the animal

body is capable of responding at the same time is large. This is fortunate, since the animal body is constantly infected simultaneously with a number of microbes. The body responds to the stimulus by producing antibodies, the most important one of which is, a specific ferment that enables the cells of the body to ingest and digest the invading microbes (this ferment is variously called immune-body, amboceptor or coferment); and an antiferment, called an titoxin, to neutralize the microbial ferment or toxin. It is important to remember that these antibodies are absolutely specific for the given microbial antigen, and the production of them in sufficient quantity (which varies with the case) is absolutely essential for the success of the method.

In the original experiment of Wright and Douglas, these specific antibodies were ignored and the dosage was founded on the quantity of the fluctuating and, at best, feebly specific, heat-labile opsonin, or complement, found by the opsonic-index experiment.

This has been one of the most potent causes of the method getting into dispute, since a low dosage will keep the opsonic index high, but, will be quite insufficient to produce enough of specific antibodies to cure the patient in the majority of cases. I often have cured cases in which the method has been said to have failed.

Again, if the essential antibodies are specific for a given antigen, it is obvious that, in treating a patient, the antigen must contain all the microbes that are attacking the patient; for, nearly all infections rapidly become mixed. As I have many times said before, the inclusion of an unessential microbe will do no harm in an antigen, while the exclusion of an essential microbe will lead to failure. I need not further argue the case, for, the use of mixed antigens, the necessity for using them, is now generally recognized; but, I must say something about stock antigens.

## About Stock Antigens

It is often suggested to me, and, the idea seems to be widespread and will be con-

\*Read before the Medical Section, Royal Academy of Medicine in Ireland.

firmed by recent statements made by Sir A. Wright, that there is a nonspecific action of antigen; in other words, that it does not greatly matter what antigen is used. This position is quite untenable. How complete the specificity of these antibodies is, is demonstrated by the fact that, in passive immunization, the serum against one strain of pneumococcus is quite ineffective against another strain. And so with other sera, for example antimeningococcic serum.

Further, if this contention were correct, the stock-staphylococcus and streptococcus-antigen made in huge quantities for the treatment of war-wounds would have been a great success, instead of getting antigen-therapy into disrepute. It is unpleasant to contemplate the numbers of limbs and lives that have been lost because of failure to use this very potent adjuvant method for the treatment of war-wounds on a proper scale.

Then, again, were nonspecific action effective, immunization against the typhoid-bacillus ought to protect against the paratyphoids; but, this it does not do. What does happen is, that, if the immunizing mechanism for a given antigen is present, a dose of another antigen will mobilize a quantity of the antibody to this. For instance, a dose of paratyphoid-antigen will produce a flood of agglutinin to the typhoid-bacillus, but, only in a typhoid-immunized animal. There are certain emergencies, such as pneumonia and puerperal fever, where it is essential to try a stock antigen pending the making of an autogenous one, but, in these conditions, the probable cause is known. So, too, in boils and gonorrhea. But, it is not justifiable to use a stock antigen for a condition in which the bacteriology is not known. Boils are not always caused by staphylococci: gonorrhea is always a mixed infection and the accompanying infections vary.

The stock antigens commercially obtainable often are impotent, being made from old laboratory-strains that have lost their virulence. A few months ago, I was informed by an entirely reliable person that he had known water made slightly opalescent with milk to be sent out for an antigen.

So important is it that these antigens should be autogenous, that the medical construction-schemes at present before this

country provide for large laboratories throughout the country, an important part of whose functions will be the making of them, so that they may be available for the whole community.

#### About Dosage and Intervals

The proper intervals between doses is a puzzle to many. The intervals depend on the reactions. These reactions are manifestations of the negative phase, a period after inoculation, when the resistance of the patient is lowered. The reaction is classified into *local*, indicated by tenderness and perhaps swelling and redness at the site of infection; *general*, as shown by malaise, rise of temperature and pulse; and *focal*, indicated by increase of symptoms at the site of the infection, as, for example, diarrhea in the case of intestinal infection, increased cough and sputum in lung-infections, increased pain in an infected joint or nerve.

These reactions generally come on within twenty-four hours, although sometimes delayed for thirty-six; very rarely do they occur after the lapse of forty-eight hours. So that, if one uses the following simple rules, one rarely fails to space the doses properly.

In acute cases, the reaction is demonstrated by temperature and pulse. If the temperature remains unaltered, the next dose may be given in from thirty-six to forty-eight hours. If it fails, the next dose may be given when the temperature begins to rise again. If it rises, one must wait until it falls again, before repeating the dose. In chronic cases, if there is no reaction, focal or general, the next dose may be given in three days; if a reaction occurs, as shown by malaise and increase of focal symptoms, the next dose ought not to be given inside of three days after all signs of it have disappeared. If there is any doubt as to whether a reaction has passed off or not, leave a few days longer interval rather than risk giving a dose during a negative phase.

It has recently been popular to assert that there is no such thing as a negative phase. No one making such an assertion could have had any practical experience with this method. If the reaction (negative phase) is unduly severe or prolonged, it can be controlled and cut short by administering iodine. I use, for this purpose, a mixture of iodine, menthol, and radium in almond-oil, and it is very efficient.

As I have often pointed out before, the idea is founded upon the observations that iodine destroys the toxic properties, but, not, the antigenic properties of microbial toxins. The dosage varies with the case. In acute cases, for instance, puerperal fever caused by streptococci or in influenza, a few small doses, say,  $2\frac{1}{2}$ , 5,  $7\frac{1}{2}$ , 10 million of the causative antigen, is all that is necessary; in chronic cases, such as chronic staphylococcal eczema or boils, very large doses, as much as 30,000 million or more may have to be used.

In such conditions as rheumatism, where one may be using one antigen containing staphylococci, streptococci, and colon-bacilli it is not safe to stop before attaining a dose of 5,000+500+500 million, respectively.

#### Essentials for Success

Lastly, if the patient is to make antibodies effectively and if they are to act properly in his body, the latter must be got into as good a physiological condition as possible. The hydrogen-ion concentration of the blood and tissue-juices must be normal. Insufficient secretion of his hormonogenic glands must be replaced, distressing symptoms, such as pain and cough, must be relieved. In wounds, proper drainage must be insured. Methods for determining the antibodies to the focus of infection must be used. The oxygen-carrying apparatus must be efficient, and so on. This is all common sense, but, the therapeutic immunizator is supposed to think his methods so potent that the exercise of such methods is beneath his dignity.

On the other hand, I want to emphasize that, in the cases that I am about to describe, such methods, alone, had entirely failed to cure the conditions that at last were brought to a successful issue by immunization. To sum up, it is essential for success that

1. The antigen should be specific and complete.
2. The doses should be given at proper intervals.
3. Sufficient antibodies should be made by attaining to a sufficient dose.
4. The physiological condition of the patient should be restored as far as possible by appropriate methods.

#### Cases from Practice

I shall now proceed to illustrate my contentions by briefly describing cases of

general infection: infections of brain, eye, ear, skin, respiratory, gastrointestinal, urinary, genital, glandular, and of connective-tissue.

I ask you to remember that many of these patients were either in acute danger of their lives or had had the most skilled possible ordinary treatment, some of them for many years. You can then judge as to whether the recoveries were the result of the treatment or, whether, by some extraordinary coincidence, they happened to occur after it.

The first case that I shall relate is to illustrate the efficacy of the method in an acute general infection of the utmost severity.

*Infection of knee-joint.*—Constable G., aged about 40, slipped and fell while ascending a mountain on July 28, 1912, and grazed his left knee. A few hours later, his leg began to swell and, by the next day it was of enormous size and he was acutely ill. He arrived at Doctor Steevens' Hospital on the evening of the 30th of July, when his leg and thigh were extensively incised. I was requested to see him the next morning.

He then was delirious. His temperature was  $102.8^{\circ}$  F., and his pulse ran 110. The swelling extended up to and upon his abdomen. I isolated streptococci in pure culture from one of his wounds and made an antigen. He was given his first dose on the morning of August 3d. He was delirious still. He appeared somewhat better the next morning. The dose was repeated on August 6 and a dose of iodine-menthol-radium was given with it. His temperature came down steadily until August 8, when it was normal. It began to rise again on August 11 and there was increased discharge from the wounds. I gave him  $7\frac{1}{2}$  million on the 12th, but the temperature did not come down as I expected and, so, I made a fresh culture and isolated a colon-bacillus. From this colon bacillus, also, an antigen was prepared, and, after the first dose, combining it with the streptococcus-antigen, the desired effect was observed to follow. Recovery proceeded uninterruptedly.

*Infections of the brain and spinal cord,* from the point of view of therapeutic immunization, are largely unexplored territory. I have, within the last few months, isolated a staphylococcus from the cerebro-

spinal fluid in a case of advanced disseminated sclerosis. The condition of the man certainly has greatly improved from an autogenous antigen; but, only amelioration could be expected in such a condition. I mention it, because, if the man had been treated earlier, there might have been some hope of permanent arrest.

The following two cases, the first acute, the second chronic, appeared to be *infections of the brain tissue*. One Mr. B., a medical student, had had, for some days, a temperature of 100° to 102° F. before he took to his bed. He then began to see double. He became delirious and had hallucinations; but, when spoken to, would rouse up and talk fairly sensibly. The conjunctivæ were congested; he was badly constipated and wetted his bed; he had, in short, all the symptoms of lethargic encephalitis.

On the chance that the infection might be caused by the influenza-bacillus, I gave him 2½ million influenza-antigen; the improvement was immediate. I followed this up with 5 and then 7½ million, after which his mind was normal, although his memory still was somewhat defective. However, his temperature was still 99° F. I then gave him 10 million; that night, his delirium returned in full intensity, although he had no further rise in temperature. He did not become quite normal mentally for two days. This focal reaction made it quite certain that the influenza-bacillus was infecting his brain.

The chronic case was that of a man aged about 35, a patient of Doctor Neary's. I first saw him in April, 1918. He had been suffering from *epilepsy* for seven months. There was a history of rheumatic fever in 1915, 1916, and 1917, and he had a mitral systolic murmur. He was having two or more fits a week, and his wife noticed a "roaring of wind" in his abdomen before these fits came on; also twitching of his right hand. He had been kept under the influence of bromides, but, the attacks persisted.

He had marked pyorrhea and the symptoms of intestinal indigestion. I thought it worth while to try a mixed antigen, on the chance that it might be a rheumatic infection of his brain. The microbes were staphylococci, diphtheroids and colon-bacilli. The initial dose was, 10 million staphylococci and 1 million, each, of the others.

This dosage was continued up to 5,000+500+500 million. The fits gradually became less frequent and finally ceased. He had one relapse a few weeks after, but, has kept well since then.

This is the only case of epilepsy that I have had the chance of trying; but, it seems to me quite likely that at least some of the cases of epilepsy occurring in childhood may be some chronic infection of the brain. In this connection, I have had one case of severe *chorea* (which I first saw in March, 1917) accompanied by swollen glands in the neck and pain in the left knee and shoulder, besides signs of intestinal indigestion, with the temperature going to nearly 100° F. This patient was very successfully treated with mixed catarrh-antigen, containing micrococci, M. catarrhalis and streptococci from her post-nasal catarrh and coliform bacilli. The initial dose was 1 million+1+1, which had to be repeated three times, owing to the reaction before the next dose of 2+2+2 could be given. The final dose was 100+100+100. She remains perfectly well and robust.

I do not intend to describe any case of intraocular infection, because I have not had sufficient opportunity to draw any definite conclusions as to the efficacy of the method. I may mention, though, that I have had two cases of *iritis*, one a case of mixed ordinary and gonorrheal *rheumatism*, and one a case of *chronic eczema*, with acute exacerbations. This I shall mention later. Both patients recovered under treatment. Two cases of *granular ophthalmia* I will describe briefly.

The first case was one of very advanced granular ophthalmia with pannus, in a man in his early twenties, whom I first saw about eight years ago. The opacity was such that he could not read at all with one eye and barely with the other. He had been under treatment by eye-specialists for years. I isolated staphylococcus aureus from his conjunctival sac and inoculated him with an antigen made from it, beginning with a dose of 100 million. His final dose was 20,000 million. His eyes cleared up completely, with the exception of a very slight corneal opacity in one eye, but which hardly interfered with vision, and his eyelashes grew again.

A few months ago, I saw, with Doctor Lynn, a small, miserable, slum child about

2 years old, emaciated, with a discharge from its right ear and a most marked patch of granular ophthalmia under its left upper lid. From the latter, staphylococcus aureus was isolated. The initial dose was 25 million. The patch disappeared completely in a few weeks, as did the ear discharge, after a course with a special antigen made from the discharge.

I am not prepared to assert that granular ophthalmia is caused by the staphylococcus aureus; still, I think that these two cases suggest that further investigations along this line would be worth while.

I now shall describe two cases of *infection of the ear*, since, between them, they comprise infection of the internal ear, the middle-ear, and the external auditory meatus. I may state that ear-infections respond very readily to this method. I can not recall a case of discharge that did not yield to it.

Mr. T. A., aged about 50, an organist, had been gradually becoming deaf and had, during the few months before I saw him, in February, 1918, had many severe attacks of vertigo. He had consulted two specialists, who had assured him that nothing could be done for him. I found that he had postnasal catarrh and also pyorrhea. From the former, I isolated staphylococci and streptococcus viridans. The initial dose of the mixed antigen given was 25 million plus  $2\frac{1}{2}$  million. At first, he had focal and general reactions, with increase of the vertigo, but, the latter gradually ceased. His final dose was 2,000 plus 100. His hearing now is greatly improved. He has lost his postnasal catarrh and has no trace of Menière's symptoms.

Mr. B., aged 54, had had a discharge from his left ear for twenty years. All this time, he had been under the most skilled care. His ear drum was quite invisible, owing to the passage being almost closed, at the junction of the bony and cartilagenous meatus, by exostosis and granulation-tissue. It was with great difficulty that a small opening could be maintained. It sometimes became blocked, and then the pain became agonizing. As it was, he had periodic attacks of most intense pain and could sleep only on his back, with his head kept carefully in the mid-position; turning on either side causing the pain to become more severe.

I isolated staphylococcus albus, a short Gram-negative bacillus and streptococci

from the discharge. The first dose was 25 million staphylococci, plus  $1\frac{1}{4}$  million Gram-negative bacilli plus  $1\frac{1}{4}$  million streptococci. He had, at first, very marked focal reactions, which were controlled with iodine-menthol-radium. The first dose was given in August, 1917. The last dose of 5,000 million+250 million+250 million was given on January 17, 1919. The discharge had at that time entirely ceased, the exostosis and granulation-tissue had entirely disappeared, and the sclerosed and retracted drum could be clearly seen. He had no pain. He was, of course, completely deaf in that ear.

*Skin infections* of various kind respond most satisfactorily to this treatment. I will relate only one very chronic and severe case.

A lady of between 30 and 40 consulted me in October, 1913. She came into my consulting-room with a thick veil, to hide her swollen face, and blue glasses, because of severe photophobia from intraocular infection. She had the eczema also all over her arms and in other places on her body. She had had the infection since the age of 14. The acute exacerbations occurred especially in the spring and summer. She had pyorrhea around her lower front teeth, all the rest were gone. She was very constipated.

I isolated staphylococcus aureus from her skin, micrococcus catarrhalis and streptococci from her pyorrhea, and colon-bacilli from her feces. The first dose given was 25 million staphylococci, 1 million mixed micrococcus catarrhalis and streptococci, and 1 million bacillus coli. Her final dose of staphylococcus, given on the 17th of March, 1914, was 3,000 million, and of the other microbes, 75 million. She had then lost every trace of the eczema, her pyorrhea had disappeared, and she no longer was constipated. She remains perfectly well.

As *postnasal catarrh* is one of the most difficult of the respiratory infections to deal with, I chose that as a type.

Rev. Dr. C. consulted me in June, 1912. He had suffered from postnasal catarrh for years and had had much local treatment, without getting relief. I isolated large Gram-positive cocci and streptococci. The first dose given him was 10 million of the large coccus and 5 million of the streptococcus. It was a larger initial dose than I now administer, and there occurred a rather



severe focal reaction. The patient's final dose was 300 million+300 million. He has remained perfectly well. His pyorrhea healed, too.

#### In General

I could relate numerous cases of acute and chronic respiratory infections successfully treated, were it necessary to do so for my purpose; as it is, I have often stated that there is no necessity for any respiratory infection ever to become chronic. Recent infections are very easily cured with autogenous antigens.

Pyorrhea alveolaris shares with post-nasal catarrh and chronic tonsillitis the responsibility for the infection of the gastrointestinal tract, and the latter two are common sites of the entrance of microbes into the interior of the body. Consequently the prophylaxis of many incurable conditions, such as endocarditis, lies in getting rid of these infections.

In some cases of pyorrhea, the organisms of Vincent's angina, that remarkable symbiosis of the bacillus fusiformis and of spirochetes, are associated with microbes in the pathogenesis of the disease. When this is the case, organic-arsenic preparations must be used to kill them.

I have already mentioned the healing of the gums in cases described above, therefore, I here shall describe only one case. The most common microbes are, micrococcus catarrhalis and streptococci.

Miss C. consulted me in April, 1912, having well-marked pyorrhea. I isolated micrococcus catarrhalis and streptococci. The initial dose given was,  $2\frac{1}{2}$  million of micrococcus catarrhalis and  $2\frac{1}{2}$  million of streptococci. The final dose was, 250 million of each. I saw her a short time ago. Her gums remain quite well. I think, though, that it would have been safer to have gone on to 500 million of each.

As I have already stated, under infections of the whole or of various parts of the gastrointestinal tract, one nearly always finds a source of infection either in the nose, tonsils or gums. These germs are swallowed and thus infect the stomach or, passing on, lower the resistance of the intestine to the bacillus coli, which then becomes pathogenic.

Miss K., aged 25, consulted me in April,

1917, complaining of severe indigestion and constipation, and an abnormal amount of gas from the bowel. I isolated large Gram-positive cocci and streptococci from her pyorrhea and bacillus coli from her feces. The initial dose was 5 million large Gram-positive cocci,  $2\frac{1}{2}$  million streptococci, and  $2\frac{1}{2}$  million colon-bacilli. Her final dose was 200+100+100 million, respectively.

Her weight was 6 stones  $7\frac{3}{4}$  pounds when I began on 20 April, and was 8 stones  $1\frac{1}{2}$  pounds in June when she had the last dose. The final dose was not high enough. She remained quite well for eighteen months and then had a slight relapse. A course of similar treatment then restored her. It is not safe to stop under 500 million of these antigens.

I have had two very successful cases of duodenal ulcer treated in this way. There was no doubt about the first one, because the man had been operated upon twice. He has had no symptoms since being treated with antigens.

A case of an elderly gentleman, which I saw in consultation with Doctor Cook a few months ago, Mr. C., is of peculiar interest, as it was feared that he was suffering from malignant disease of his liver. When I saw him, he had an elevated temperature, he was very weak, deeply jaundiced, and had fatty stools. I thought that at any rate, there was a chance that it was a duodenal infection spreading up and blocking the bile-duct. I made an antigen from his pyorrhea and from his stools, the initial dose being  $2\frac{1}{2}$  million of streptococci and  $82\frac{1}{2}$  million of colon bacilli. The final dose was 500+500 million of each. He improved from the beginning and is quite well now.

I shall describe only two further cases, one was that of an elderly lady, whose life had, for years, been made miserable by the continuous passing, from her bowel, of large quantities of foul gas. It was so bad that she said her house smelled like a sewer. I made an antigen from her bacillus coli, beginning with a dose of  $2\frac{1}{2}$  million and gradually increasing to 2,000 million. She gradually got well and has remained so.

[To be concluded.]

# What Others are Doing

## SOME REMARKS ON THE NATURE AND THE ETIOLOGY OF SPANISH INFLUENZA

A remarkably instructive study of his observations during the "Spanish-influenza" epidemic in Pietermaritzburg (South Africa) is contributed by Dr. Alexander Edington to the *Lancet* for October 25. Doctor Edington contrasts the enormous mortality of the "Spanish-influenza" epidemic with the much lower one of the 1889 epidemic, seeing in this contrast reason for grave doubt as to whether this high mortality was actually attributable to influenza or to some other more malignant infection. If it was a new disease, he asks, what are its characteristics, or if not, is it a recrudescence of some malady that has lain dormant for some generations?

The main symptoms of this last epidemic are enumerated as follows:

1. Malaise, headache, and pains in the body. In the fatal cases, pains extending down the whole length of the back have been common.

2. The temperature usually has risen rapidly, but there has rarely been a true hyperpyrexia. Where this has occurred it usually has been within the first few days and was due to true influenza. But, in certain fatal cases, the temperature fell about the fourth or fifth day and rose again about the fifth or sixth day, then presenting a very different curve. He considers that in such cases the first curve was that of true influenza arising after a short period of incubation, and that the second curve arose after a longer incubation and was due to an unknown factor.

3. The pulse rises with the fever, but, during the curve of the second stage, there is a very definite rise in blood pressure, and the pulse is hard and bounding.

4. Following upon the rise in blood pressure, there frequently is noted a short,

explosive cough when gelatinous masses of mucus, and sometimes clots of blood, are forcibly ejected. In one case, there was an actual rupture of a blood-vessel attended with profuse hemorrhage.

5. The delirium comes on about the third night, and is not severe at first; the patient can be roused into a lucid interval; but, after about 48 hours, the delirium is much more severe, and lucid intervals are rarer. Eventually, it is of a violent character and there is difficulty in keeping the patients in bed.

6. In the cases that went on to a fatal termination, there has been, usually, an active absence of any definite pathological symptoms in the lungs until crackling sounds are heard. This symptom commonly comes on very late in the illness and foreshadows death. The sound is very peculiar and is such as one might expect if the lungs had been removed and the thorax packed with dry, crushed paper. But, even after this crackling has been manifested for some time, there is little or no alteration in the percussion note.

7. The last symptom is one of the most serious import, namely, the blackening of the nails and the dusky hue of the face. This has been, commonly, the forerunner of death and is so characteristic that lay persons have taken notice of it.

As for the bacteriology of the disease, Doctor Edington relates that examinations of the second sputa of the delirious patients showed in some cases the presence of bacilli of the plague type, though not absolutely typical; the bipolar staining being not so clearly nor so sharply defined as in plague. The injection of a few drops of such a sputum into the subcutaneous tissue of a guinea-pig led to death in six days, the animal not showing any illness until the day previous to its death. Doctor Edington made further bacteriological investigations following up the lead mentioned in the foregoing, but, which are too detailed to lend themselves to abstracting. Suffice it to say that the

similarity, to the bacilli of bubonic plague, of microorganisms found in patients with "Spanish influenza," was rather insistent and that these bacteria evidently were very virulent for guinea pigs.

Nevertheless, it can not be declared definitely that this microorganism actually is the cause of the disease, no matter how suggestive may be the findings. However that may be, the disease induced by this microorganism is a definite infective disease with high virulence and which probably accounted for most of the death rate of the so-called influenza. The cases can be diagnosed very soon after admission, in some cases, especially if there are no lung symptoms and the temperature is not over 104°, and if the nervous condition is well marked. Cases in which a moderately high temperature remains high for 48 hours without lung symptoms, are to be regarded with suspicion.

The disease would seem to be one affecting the cerebrospinal nervous system, and to be more irritative than inflammatory. Pulmonary and other conditions that may supervene might be regarded only as complications, arising from the disorganization of the nervous system.

#### ABOUT FACE MASKS

The mask used by the profession as a practical measure of prevention against the infection of influenza is worth as much, perhaps, as the eating of onions, the wearing of asafetida about the neck, the many arts and schisms resorted to on the part of many cults and religious sects. The writer does not wish to go on record against the use of the mask as a preventive measure against the spread of the infection of influenza, but, as a practical prophylactic measure, he would have as much faith in the one commonly used as that cited by the laity. In our hospitals for infectious and contagious diseases, where the physician can carefully attire himself with gown, cap and mask, it would be practical and of accepted virtue as a precautionary method against the spread of the disease from the daily wearing apparel. For the protection of the individual who wears the mask, the writer can not see the logic of its use as a practical preventive. The real virtue to be received from its use, would be the object lesson it would have for the laity, and those under quarantine, and would de-

mand on their part a better cooperation and a more careful procedure in their efforts to assist the profession or the epidemiologist.—[Dr. S. D. Hatfield, in *West Virginia Med. Jour.*, Oct. 1919.]

#### ONIONS AS A PROPHYLAXIS

What virtue there may be in the active principle of the onion eaten during an epidemic of infectious or contagious disease, is a question. It may be that its properties to stimulate the function of the mucous glands of the respiratory tract, and thus, as it were, wash away the excessive clumps of the germs peculiar to influenza, may be effective, or that it may have some specific antiseptic property against the growth and development of such germs, or that its deodorizing properties are more than the ordinary germ of influenza can bear in its endeavor to gain a habitat in its host. The simple idea of the eating of onions as a preventive measure against the spread of the many infectious and contagious diseases of which human beings are victims, and which measure is valued and held most sacred by mothers, and largely considered true by the laity, as well as a few of the profession, may not appear so unscientific or as worthless, as many measures used by the profession during the recent pandemic of influenza.—[Dr. S. D. Hatfield in *West Virginia Med. Jour.*, Oct. 1919.]

#### PERSONAL INFLUENZA PROPHYLAXIS

In a paper read before the West Virginia Medical Association, last May, Dr. S. T. Hatfield (*W. Va. Med. Jour.*, Oct.) describes the measures that he took in order to protect himself against acquiring influenza.

For some years it had been his custom to vaccinate himself with one of the commercial stock-influenza-bacterins whenever exposed to influenza and, having confidence in its virtue to produce an acquired immunity against this disease, he revaccinated himself as a first measure of self protection. Among other means adopted for his own protection, Doctor Hatfield made it a practice to live and sleep in the open all the time. His principal thought was, not to be found in congested, close and decidedly small rooms; not to visit patients in such quarters. Before enter-

ing a room where there was a suspected case of influenza, he invariably requested that the door be left open for a moment before he entered the room and, at the same time, directed that a window be raised so as to change the air in the room or, at least, to allow fresh air to mingle with the impure and germ-laden dust of the sick room. Furthermore, the doctor avoided, as much as possible, coming in contact with the patient or while making the necessary physical examinations, touching material contaminated with the excessive mucous secretions characteristic of the disease. Finally, he never drank or ate about the home of the patient and he made it a custom to drink tea or coffee, when thirsty, instead of water, and to eat an onion every day. While he does not assert that the influenza bacterin employed actually did prevent his acquiring the disease, he, nevertheless, is in sympathy with the principle and is confident that eventually its employment will be justified.

#### DOES ONE ATTACK OF INFLUENZA CREATE AN IMMUNITY?

The question as to whether one attack of influenza or influenzal disease successfully recovered from confers an immunity to a later acquirement of the disease, during the same pandemic or epidemic, has been asked on numerous occasions and has received contradictory answers. Theoretically, it must be admitted that the mere fact of recovery from influenza, as from any other infectious diseases, postulates the establishment of an immunity with arrested further multiplication of the bacteria, curtailing their pathogenic action. However, it is probable that such an immunity often is not very lasting, although it may protect against renewing attacks of the disease within the next few weeks, or, possibly months.

The opinion has been expressed that the epidemic of influenza that is expected this fall and winter will be less severe than that of last year because all those very susceptible to the disease were killed off a year ago, and because those now living probably would by that very fact be proved to enjoy a satisfactory resistance. This view is supported by the fact that the influenza epidemic of 1890 was less severe than the pandemic of 1889, probably because the blood of the people acquired

immunizing properties against this particular infection.

In discussing this point, Doctor Hatfield, to whose article on influenza prophylaxis we have referred to in the foregoing abstract, knows "of no other preventive used in the spread of the disease that might have played any better part than the acquired immunity from having had the infection the preceding year." He has not been able to convince himself that any patient of all those he attended presented the clinical symptoms of the disease more than once. Indeed, his observations caused him to assume a rather skeptical attitude toward the opinion held by some of the affection appearing in the same individual a second time during the pandemic. He relates that one family of ten became infected with influenza in the early part of the pandemic, and had one infant of two months and one boy of four years who escaped the disease. In the more recent epidemic, which invaded the vicinity, the infant and boy referred to had the disease, but no other member of this family, who had the infection in the pandemic, became infected. He made similar observations in as many as six different families. These facts, and his own convictions from clinical symptoms upon which he was forced to base his diagnosis, convinced him that one attack did seemingly establish an acquired immunity for a period of time longer than first thought by many persons. As to recurring attacks, he found a large number of complications following the recrudescence of the infection that might have been improperly termed recurrences.

#### TREATMENT OF DRUG ADDICTION AT RIVERSIDE HOSPITAL

*The Weekly Bulletin* of the Department of Health, city of New York, for September 27, contains information on the treatment of drug-addiction at Riverside Hospital, which latter is situated on North Brother Island. Last August, it was decided to utilize this hospital exclusively for the treatment of patients afflicted with drug-addiction. The capacity of the male-unit is 523 beds, while that of the female-unit is 100; this number being in agreement with the proportion of the two sexes applying for treatment at the narcotic-drug clinic.

Patients are self-committed for six weeks, through the agency of the Narcotic-

Drug Clinic. The first seven or ten days are devoted to actual treatment, the next seven or ten days to convalescence, and the remainder of the time is given to the rehabilitation of the patients' mental and physical forces, so as to enable them to withstand any temptation to go back to their drug.

During the period of commitment, the patients are given employment in various activities on the island.

The treatment consists in elimination and the rapid reduction used during the first three or four days of the habit-drug, if a patient's condition warrants. Hyoscine-anesthesia is maintained for thirty-six hours, when the subject is transferred to the Convalescent Building, and lastly, to the Dormitory.

The treatment has resulted in no deaths and no bad after-effects seem to follow, if carried out with care. All patients are carefully examined before instituting the treatment, while unsuitable cases, such as, for instance, of tuberculosis or active syphilis, are sent to an appropriate hospital for relief, before attempting to cure them of their drug-habit.

The number of nurses in attendance is in proportion to the number of the patients; in the treatment-wards, one nurse for every two patients, day and night. In the convalescent-wards, one nurse day and night. In the dormitories, one nurse day and night.

At the end of the treatment, patients mostly are in a very weak condition, and they are transferred to the convalescent-ward for "building up." In these wards, they are carefully nursed and properly fed. As soon as they regain their normal strength, they are transferred to the Dormitory.

All patients assigned to the Dormitory Building are supposed to be in such physical supervision, perform some kind of useful work.

It is needless to say that every possible precaution is taken to prevent the smuggling of drugs into the institution. The island is patrolled by nine police-officers, in three shifts of eight hours each. These officers are not allowed to enter any building, unless called there for special duty; they have nothing to do with the patients,

in any way, except when an attempt is being made to violate regulations.

Various recreations are provided, including handball-courts, tennis-courts, croquet-ground, billiard- and pool-tables, moving-picture shows, library, and reading-room.

### HOW TO TEST MUSHROOMS

In the latest (5th) edition of Friedenwald and Ruhraeh's "Diet in Health and Disease", there is quoted an excellent method of distinguishing between the edible and the poisonous varieties of mushrooms. It is reproduced here, as being of especial value:

"First, avoid every mushroom having a cup or suggestion of such at the base; the distinctly fatal poisons are thus excluded. Exclude those having an unpleasant odor, a peppery, bitter or other unpalatable flavor, and those of tough consistency. In addition, it is well to exclude those infested with worms, those in advanced age, or partly decayed; and, in testing new species, they should be kept apart from the others. The best test is, to begin with a piece the size of a small pea, masticate it very slightly, being careful not to swallow any of the saliva, and finally expel all from the mouth. If no results follow during the interval of a day, the experiment may be repeated, swallowing a little of the juice, the fragments of the fungus being expelled, as before. In twenty-four hours, the third trial may be made, swallowing a small fragment, and, if still no unpleasant results follow, the following day a piece the size of a hazelnut may be attempted.

"In using this method, poisonous varieties may be excluded, with only a temporary indisposition on the part of the experimentalist, and it is the only safe method of avoiding the poisonous varieties.

"As a rule, any mushroom, omitting the amanita, that is pleasant to the taste and agreeable as to odor when raw, is, probably, harmless and, if an unfamiliar species, it may be tested by the foregoing method. (For an excellent description—with illustrations—of the various fungi—the reader is referred to *Farmers' Bulletin No. 15*, United States Department of Agriculture.)"



# Let's Talk it Over

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## Influenza and its Microbe

**T**HERE seems to be a prevailing belief at the present time, that, until we find the real causative microbe of influenza, our therapeutic means to relieve or cure it must remain ineffective. This conviction I do not share; and, for cause.

In the first place, take tuberculosis, as an instance. The discovery, by Koch, of the bacillus has not given us a reliable specific remedy for the disease. We all know about tuberculin and what at first it was said to accomplish. We now know in how many instances it fails to be curative, or even to be notably helpful.

Unfortunately, also, nowadays, the use of drugs in the treatment of tuberculosis is, in large measure, relegated to the past as being of little value. The younger, advanced workers have become well-nigh therapeutic nihilists. They rely, merely, upon hygienic rules of life, plus good air, good food and well-regulated exercise, or employment.

This contracted view results from a too intent watching of the growth and number of the causative bacilli. If they are present in the sputum or urine, not satisfied with the diagnosis as a reason for giving a few time-honored remedies, the doctor simply hies the sufferer to the country, or to a sanatorium. And, yet, the bacilli, while fixing the diagnosis of the disease, often should be regarded somewhat as scavengers, the precise importance of which cannot be immediately determined. Surely, we should not, of necessity, be pessimistic and undervalue our resources in medical treatment.

In the treatment of syphilis, too, there is not much gained by the discovery of the spirochetes. What finally, has been the value of salvarsan as a specific remedy? To-day, we recognize that we must rely, as formerly, upon mercury as the most useful remedy to combat recurrent symp-

toms of syphilis, no matter how severe they may be.

There probably is no greater specific in disease than vaccination in smallpox. Yet, no one has demonstrated to us positively and with ample corroborative proof the effective causative microbe of the affection. So it is with scarlet fever, measles and with not a few other acute infectious diseases.

In diphtheria, I am well aware of the great results frequently shown from the early use of antitoxin. I also am aware that the discovery of the Klebs-Loeffler bacillus led the way to the finding of, and treatment with, antitoxin. As to typhoid fever, we know that the vaccine treatment has been of immense value in our armies, at home and abroad, in preventing the advent of the disease. In a curative way, it has been at times helpful, but, that is about all we can truthfully say of it so far.

Many of these diseases, irrespective of their bacillus, whether it be recognized or not, are treated upon general and recognized rules that to us seem most intelligent and which are the resultant of decades of observation and experience by the foremost clinicians.

In view of the foregoing facts and of others, that might be added, why do writers and experts consider the finding of the causative microbe of influenza, as of necessity, of so great importance, so far as treatment is concerned? It may, or may not be true. A few, at least, among the older practitioners, after many trials and wide experience, pin their faith upon the utility of a few drugs and these they consider essential to the cure of influenza in the majority of cases.

We have followed too closely our patients, in the past, to give up our faith. True, we have found no specific. There is

none; there may never be one. However, we purpose to add, to the general sound advice of health officers, something more definite and convincing.

Thus it is that, in our experience, certain remedies have a very sure and desirable action. To me, as I have stated many times already, no drug equals the sufficient and early use of salicylate of ammonium. I am, also, convinced that the perforated zinc respirator is the best of all masks, when properly medicated and intelligently and sufficiently used.

BEVERLEY ROBINSON.

New York City.

### CARE AND TREATMENT OF INFLUENZA-PATIENTS

Last year's epidemic of influenza has brought forth much of interest concerning the care and medical treatment of influenza-patients. As to the care of patients in all cases of influenza and its complications, all doctors, I believe, are agreed; but, as to medicinal treatment, especially in the case of some doctors, opinion appears to differ considerably.

Good care of the patients is of vital importance in the treatment. Many deaths have occurred from influenza because of the lack of proper care; either because of carelessness on the part of the patient, or of the attendants, or, sometimes, from inability to secure proper attendants, especially regular nurses. Too much stress can not be laid upon this point, especially in the prevailing form of the disease.

As to the medicinal treatment of influenza-patients, my experience justifies me in stating that definitely indicated medicinal treatment throughout the full course of the disease is important; and this does not mean the expectant plan, giving little or no medicine while waiting for symptoms to arise before intervening. When called to an influenza-patient, I start active medicinal treatment at once, not merely with cold water, lemonade, and ice-bags—which are good so far as they go—but, with medicines, as indicated by the symptoms; my first efforts being directed toward cleaning out the alimentary canal and seeking to relieve the patient as much as possible of distressing symptoms, whatever they may be. To be more specific, I will cite a number of cases to show

how I proceeded throughout the last year's epidemic.

Case 1. My own daughter, aged 23 years. She was living in a nearby town where the epidemic was quite severe, with a goodly number of deaths occurring. Her symptoms were as follows: Initial temperature, 102° F., headache, general body-ache, a troublesome cough from bronchial irritation. A local physician prescribed for her the customary medicinal treatment, namely, aspirin and quinine for the various aches and the fever, and Dover's powders to quiet the cough; also a laxative. With this treatment, continued for about a week, my daughter's condition grew worse from day to day. Her temperature had gone up to 104.5° F., and she was coughing almost continuously night and day, and unable to sleep. The bowels were not sufficiently active. Called to see her and after consulting with the attending physician, I took charge of her case, remaining with her for a week.

I began treatment with calomel, podophyllin and bilein tablets, one every hour until four were taken, and a laxative saline two hours after the last dose of the tablets. For the headache, I gave phenacetin, 5 grains every three or four hours. As a special fever-medicine I gave the dosimetric trinity granules (see footnote on page 788, November issue), one every half hour for several hours, then one every hour. For the very distressing cough, I gave her the following cough-mixture, which, I confess, is of the shotgun kind, but, which does the work as no other cough-medicine ever has done for me.

	No.	Strength
Gelsemoid granules.....	64	gr. 1/28
Atropine sulph. granules.....	32	gr. 1/250
Emetoid granules .....	24	gr. 1/6
Codeine-sulph. granules.....	12	gr. 1/4
Strychnine arsenate granules .....	18	gr. 1/128
Apomorphine hypodermic tablets .....	20	gr. 1/10
Iodized calcium tablets.....	10	gr. 5

Dissolve all the granules in 2 ounces of hot water, crushing them, and the tablets of iodized calcium separately in 2 ounces of hot water. Pour both solutions into a pint-bottle and fill up with simple syrup colored with carmine; this making 1 pint of cough-syrup, the dose of which is, one teaspoonful every half hour for several doses to effect and then every one or two hours. Of this cough mixture, I gave my

daughter a teaspoonful every half hour to effect.

Now as to results of that treatment. In four hours, I had the cough controlled so that there was no further distress from it. In eight hours, the little dosimetric granules had brought down the fever, from 104.5°, to 101.5° F. Two or three of the "modified No. 1" hyoscine, morphine and cactoid tablets, taken in the evening, procured needed sleep. On the third day of this treatment, the temperature was normal and remained so. The after-treatment consisted of tablets containing Strychnine arsenate, gr. 1-128; quassoid, gr. 1-64; papain, gr. 1-32; and juglandoid, gr. 1-6, before meals; granules of the triple arsenates with nuclein after meals, and the cough-mixture as needed.

Case No. 2. Man, about 55 years old. Was taken with influenza about 6 o'clock in the evening. Complained of a bursting headache, severe vomiting, bronchial irritation, general distress; there was only a slight rise in temperature; he was constipated. My treatment: for the vomiting and constipation I gave cerium oxalate and bismuth, one tablet, and two tablets consisting of phenolphthalein and calomel with aromatics every half hour, for five doses; to relieve at once the severe distress in general, 1 hypodermic hyoscine-morphine-cactoid tablet. Internally, for the headache, I prescribed one 5-grain aspirin tablet and one 1-grain quinine-sulphate tablet every three hours; for throat and bronchial trouble, my cough-mixture, every two hours; a saline laxative after the last dose of the phenolphthalein. The result of the treatment was prompt. On the third or fourth day, he was able to attend in part to his work as buttermaker.

Case No. 3. A girl of 14 years. She had influenza, with headache, bronchial cough, tonsillitis, and a temperature of 105 degrees. She had been under the care of a neighboring physician, who was giving her aspirin tablets every four hours and a cough-tablet of some kind every two or three hours. As the patient did not seem to improve under this treatment, I was called to attend her.

I began treatment with phenolphthalein-calomel tablets, two every hour for three doses, followed by a laxative saline. Other

medicines were prescribed as follows: Phenacetin tablets, 5 grains, with quinine tablets, 1 grain, one of each every four hours, dosimetric-trinity granules, one every half hour, for three or four hours, then every hour; the foregoing cough-mixture, a dose every two hours. The second day, I prescribed tonsillitis-tablets, one with each dose of the trinity granules, to effect. Good results followed this treatment.

This treatment was begun about 5 o'clock p. m., and by 1 o'clock a. m. this patient's temperature was lowered, from 105° to 102° F., and continued to drop each day, reaching normal on the third day, all other symptoms being relieved at the same time. For the sleeplessness and distress, an occasional tablet of hyoscine-morphine-cactoid with pilocarpine and caffeine was given, with excellent effect. During convalescence, digestive tablets before meals, and the triple arsenates with nuclein, after meals, were prescribed.

Case No. 4. A child, a boy one year old. Had influenza, with a temperature of 104.5° F. There was continued stupor. Another physician had charge of the case and was giving small powders of phenacetin every three hours and a cough-syrup every two or three hours. I was called in consultation at 7 o'clock p. m., and we continued the attending physician's treatment till 7 o'clock a. m. No improvement being apparent, I suggested additional treatment for the high fever, to which the attending physician consented. We prescribed "dosimetric-trinity" granules and coryza-granules (containing atropine sulphate, 1-1000; aconitine hydrobromide gr. 1-3000; codeine sulphate, gr. 1-64; quinine arsenate, gr. 1-32.) two of each dissolved in half a glass of water, giving a teaspoonful of the solution every fifteen minutes, for six doses, then every half hour till 6 o'clock a. m., when the temperature was down to 101.4° F. and the boy awoke from his stupor. The fever-solution was then continued every hour, and the child continued to improve and get well; while, before giving the fever-solution, it was considered doubtful whether the boy would live, as he had lain in the stupor for days.

In the treatment of influenza-patients, as principally outlined in the foregoing cases, I have had results pleasing, not only to myself, but, to my patients as well, having

lost but one patient and that principally because of the lack of care.

I may here more fully outline the medicinal treatment employed by me in the last epidemic of influenza. For clearing out the alimentary canal, in adults, calomel, podophyllin, and bilein and, in children phenolphthalein with calomel and aromatics, followed, in either case, by a laxative saline, and once in a while castor-oil, if better suited; also in some cases enemas were demanded. For the headache and general aches and pains, acetylsalicylic acid, 5-grain tablets, or phenacetin, 5-grain tablets, and with either of them one quinine-sulphate 1-grain tablet every three or four hours. If headache and general pains are severe and distressing, I give, as the first dose of treatment, one hyoscine, morphine, and cactoid hypodermic tablet, by mouth; relief being prompt and lasting. If the distress is not so severe, I give two hyoscine, morphine, and cactoid tablets modified with pilocarpine and caffeine; and, with good results. Also, for restlessness and insomnia, I continue the last-named tablets, at various intervals, to effect. In giving either one of the hyoscine, morphine, and cactoid tablets as above, I have had only the best results, and have seen no harmful effects whatever.

For the fever, I give mostly the "dosimetric trinity" formula, which has proven its value in bringing down the temperature with a certainty in every case. A tablet consisting of brucine hydrochloride, gr. 1-128; quinine ferrocyanide, gr. 1-112; calcium sulphide, gr. 1-6; and aconitine hydrobromide, gr. 1-3000, also has been good in a few cases where used. The deferrescent combination, in one or two cases only, for a full and bounding pulse, gave the best of results. For the nausea and vomiting, cerium oxalate with bismuth acted well. So also did hyoscine, morphine, and cactoid tablets. For the diarrheal condition of the bowels, zinc and codeine tablets afforded certain and prompt relief. For the sore throat or tonsillitis, tonsillitis-tablets, and where external muscular soreness of the throat was complained of, as well as glandular soreness, phytolaccoid, both of which remedies gave the desired relief. For bronchial cough, as well as for congestion of the lungs, the cough mixture described above acts well. During convalescence, the digestive tab-

lets and granules of triple arsenate with nuclein are given.

It has seemed to me that the early control of fever in influenza is of much importance, keeping the temperature down to 101° or 102° F.; and here is where the dosimetric-trinity formula has proven its value time and again in my hands when given in addition to one of the coaltar preparations usually employed by so many physicians. In several instances I have noted that the coaltar derivatives have not controlled influenza-fever and that patients were slipping away to or beyond the danger-point, when, with the addition of some other antipyretic, principally in my own cases, such as the dosimetric trinity and, in suitable cases, the deferrescent combination and similar remedies, control of the fever would follow with marked relief to seriously sick patients in from six to ten hours' time.

I wish to emphasize here the value of hyoscine, morphine, and cactoid tablets, hypodermic or modified, by mouth, either one given internally, in the treatment of influenza. When given with proper care, there is no more danger from using them than from using other medicines that we prescribe daily. For the distressing symptoms of influenza in any stage, these tablets in my hands have been given in most of our cases with happiest results.

If an influenza-patient is complaining bitterly of a severe headache and general distress, one single hypodermic hyoscine, morphine, and cactoid tablet given by mouth, will afford prompt and lasting relief until other medicines have time to act. For insomnia and nervousness, the hyoscine, morphine, and cactoid combined with pilocarpine and caffeine, every one to four or six hours for a few doses only each twenty-four hours will give needed rest and comfort not obtainable nearly so well otherwise. I have had no harmful effects resulting from the use of these tablets at any time and I have dispensed over 500 of the tablets modified for oral use during the epidemic. [We believe that these combinations of morphine, while excellent, should be employed only in emergencies.—Ed.]

In a case of inflammatory rheumatism following influenza, where the patient had suffered for two weeks without rest or sleep, three hyoscine, morphine, and cactoid tablets at hourly intervals, in the evening, gave a good night's rest and sleep, which

continued most of the next day, with lowering of temperature and general relief.

Last February's number of **CLINICAL MEDICINE** is one of the best numbers I have had, containing, as it does, a goodly number of interesting and helpful articles on various subjects. However, I must disagree with the treatment of influenza advised by Prof. Paul Demiéville, of Lausanne, which seems to be on the expectant plan. His advice as to cleaning out the bowels with mild laxatives and giving to influenza-patients the greatest possible care is all right, but, when he advises the use of water, lemonade, and ice-bags for the fever, headache, and so forth, I can not agree with him.

Why should a patient be left without medicinal treatment until pneumonia, heart failure or any other serious trouble sets in? Why not begin active medicinal treatment at once, to relieve distressing symptoms and avoid, when possible, the complications that Doctor Demiéville so anxiously waits for before he begins treatment? I can not see that his prescription of a solution of hydrochloric acid has any bearing upon the symptoms of influenza. Counter-irritants, dry-cupping, and so forth, are relics of the past, and, to subject an influenza-patient to such treatment without up-to-date medicinal treatment, is gross neglect. He condemns all antipyretics. Possibly he gives these in too large doses. If he will give them in small and often repeated doses, no harmful effects need be feared; only good results will follow. His objection to giving medicines because they upset the patient's stomach is not well taken, provided the medicines are properly given. I have had very little trouble in this respect. Only in a few cases have I had patients who could not take medicines in liquid form, but, who could take the same medicines in granule or tablet form.

Professor Demiéville's statement, "that a seriously sick patient should be placed in a chair a certain number of hours each day" seems to me ridiculous. If for any reason whatever it is necessary to place a patient in a sitting posture, he should be propped up in bed and not in a chair. With the treatment, or nontreatment, of Professor Demiéville I certainly should expect, in many cases, the grave conditions he mentions, but, thanks to modern medicine and methods of treatment, we have com-

paratively little to fear of these grave eventualities.

G. A. EVENSON.

Janesville, Iowa.

### ASPIRIN AND ACETANILID

Kindly tell me what you think of aspirin. I can get more relief from acetanilid combined with sodium bicarbonate. I use this even in rheumatism, where pain is severe, and in all kinds of fever. Aspirin does not allay fever promptly enough for me.

Acetanilid combined with sodium bicarbonate is almost infallible in earache of children. When they come after me, at night, I just give a dose according to the age of the child and, in thirty-five out of a hundred, that is all that is required.

In children over five, my favorite for fevers is, one drop of the tincture of aconite root with ten of spirit of nitrous ether and, if the fever is due to cold, I add two or three drops of ipecac. I order this medicine given every two hours until the fever is allayed, and but rarely have to give the third dose.

W. S. CLINE.

Woodstock, Va.

[We have frequently voiced our views concerning the good and the bad qualities of acetylsalicylic acid, acetanilid, and kindred remedies. We have invariably taken the position that, properly administered, these remedies possess as great possibilities for good as they are endowed with dangerous properties if prescribed carelessly and wrongly.

Personally, the present writer likes acetylsalicylic acid a lot, although being careful to prescribe it invariably with "q. s. of brains." However, he also employs acetanilid, usually with bicarbonate of sodium, and both remedies are frequently combined with monobromated camphor.

We have found in early cases of "cold", whether they be the beginning of a simple coryza with pharyngitis, and so on, or of influenza, or any of those catarrhal afflictions involving the upper respiratory passages with the initial rising temperature associated with general discomfort and restlessness, perhaps headache—that the symptoms are well controlled by acetylsalicylic acid. We have noticed especially a diminution of the restlessness and of the



general discomfort; patients commonly going to sleep and waking with their symptoms decidedly abated, although the patients may be "limp".

Acetanilid we employ more when there is present decided pain, and we can well understand your success with it in the earache of children. Here, however, we believe it wise to remember that earache in children usually means, a bacterial infection and that the indications are very clearly for calcium sulphide and for elimination.

There is no doubt about it that the customary defamation of acetylsalicylic acid and of acetanilid is as ill-conceived and as mistaken as was the first uncritical and haphazard prescribing of both remedies. Undoubtedly, they are powerful drugs; but if they are ordered rightly, no harm will result; on the contrary, much good will come of it.

Your fever treatment of small children is good, but here also we would add active elimination. In fact, a great many instances of fever in small children will yield to a course of calomel followed by saline laxative lemonade or castor oil—only that and nothing more. Aconitine hydrobromide, emetine hydrochloride, and various other alkaloids usually will give even more definite results; while being administered with greater ease.—Ed.]

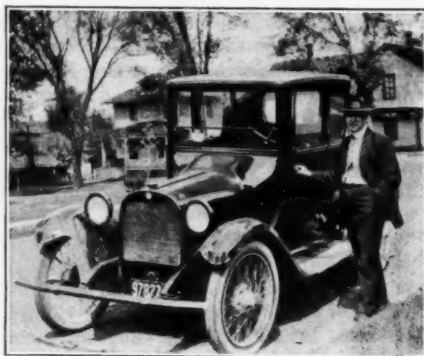
#### TWELVE HUNDRED CASES OF "FLU" WITHOUT A DEATH

I will write just a few words about the great epidemic of "flu", in which we all were concerned last fall and winter. I treated 1,200 cases and, among them, 17 cases of pneumonia, without a death. Of course, I must admit that I was fortunate, as we all must lose cases occasionally.

On diagnosing influenza, my first thought on treatment was, elimination by way of the kidneys, bowels, and skin. To sweat the patient, equal parts of quinine and acetylsalicylic acid were ordered, which caused profuse sweat and also stopped the aching. My main treatment for the bowels was, epsom salts or, better, saline laxative. I found that these remedies not only cleaned the bowels but that they kept the kidneys active as well. After the fever has subsided, any good tonic may be ordered.

Of the pneumonia patients, all were seriously sick, as, indeed, are most influenza

patients. The general treatment is comprised in a conscientious observation of the rule: "Clean out, clean up, keep clean." For medical treatment, I gave aconite, bryonia, belladonna, ipecac, as indicated; also, cactus and nux vomica in order to support the heart. Whether it was all



Dr. C. H. Armstrong

good luck or not, all my patients got well. If I had to use just one treatment for the "flu", it would be "*saline laxative*".

C. H. ARMSTRONG.

Preston, Iowa.

#### A REQUEST FOR HUMAN EMBRYOLOGICAL MATERIAL

In 1905, I observed certain malformations of the human shoulder-blade and, in contributions to current literature, I have given them the collective name "the scaphoid type of scapula", pointing out to some extent its hereditary, clinical, and anatomical significance.

Probably the most important observation connected with this type of scapula in man is, its age incidence. That is to say, it occurs with great frequency among the young and with relative infrequency among the old. There appear to be two possible explanations of this fact: Either

1. One form of shoulder-blade changes into the other during the development and growth, or

2. Many of the possessors of the scaphoid type of scapula are the poorly adaptable, the peculiarly vulnerable, the unduly disease-susceptible—the inherently weakened of the race.

I have attempted to answer these questions by seeking evidence in various directions and one of the most important of

these has been, a study of the intrauterine development of shoulder-blades. My investigations in this direction have been limited by the material at my disposal which has been inadequate for a definite solution of this phase of the problem. I am, therefore, appealing to physicians for human fetuses in any and all stages of development.

It is desired that the material, as soon as possible after delivery, be immersed in 10-percent formalin in a sealed container, and be forwarded to my address (727 Metropolitan Bldg.) charges collect. Due acknowledgment will be made to those forwarding material.

WILLIAM W. GRAVES.

St. Louis, Mo. —

[We hope that Doctor Graves' interesting investigations will be kept in mind by physicians having suitable fetal material to send to him. The object is worthy of support and the investigator naturally looks for this support to his colleagues.—Ed.]

#### A COURSE IN PSYCHOTHERAPY AND HYPNOTISM

We are informed that the Society of Psychotherapy, Hypnology and Psychology, of Paris, France, resumed its meetings on the 21st of October last, after an interruption of five years. Doctor Bérillon, the secretary of the society, has told our Paris correspondent, Doctor Sherwood-Dunn, that American students or physicians who may sojourn in Paris will be welcome to the meetings of this society. Its investigations extend to general psychology, biological and comparative psychology, psychotherapy, psychopathology and psychiatry, psychopedagogics, social and collective psychology and military psychology.

The meetings of the society take place, on the third Tuesday of every month, at rue Saint-André-des-Arts, 49.

#### INDUSTRIAL HEALTH WORK

We are informed that the medical department of Armour and Company has taken precautions among plant employes against a return of the "flu" epidemic in Chicago and other cities where the Armour plants are located.

All employes have been notified that they may have the influenza vaccine, ac-

cording to the formula of Dr. E. C. Rosenow, administered to them without charge.

In addition to offering this immunization treatment free to the employes, a general educational campaign along health lines and particularly with reference to the "flu" is being carried on among the workers in the plant.

Dr. Volney S. Cheney, medical director of Armour and Company, reports that the employes are taking an interest in the campaign and that, as a result, no serious recurrence of influenza is looked for among Armour workers.

#### LETTERS FROM FRANCE—XVI

M. René de Montozon-Brachet, the well-known French writer and lecturer, has just formed a new league, to be known as "L'Accueil Français." Its object is, to aid junior officers of the American, British, and Allied armies to enter various circles of French society.

The committee comprises the names of some of the oldest members of the French aristocracy, among them being: Mme. J. Adam, Comtesse P. d'Aramon, Duchesse de Bissaccia, Princesse Albert de Broglie, Princess Jacques de Broglie, Duchesse de Doudeauville, Duchesse d'Étissac, Comtesse de Gabriac, Duchesse de Guiche, Princesse de la Tour d'Auvergne, douairière, Duchesse de Luynes, Marquise de MacMahon, née Vogue; Marquise de Mortemart, Princesse Louis Murat, Princesse Michel Murat, Mme. Nisard, Comtesse de Nouailles, Duchesse de Rohan, douairière, Comtesse de Talleyrand-Périgord, Duchesse d'Uzès, douairière. Other members are: Mm. Paul Bourget, E. Brieux, M. Donnay, G. Hanotaux, Comte D'Haussonville, Pierre Loti, Duc de Bissaccia, and other brilliant writers and scientists.

A new "Cercle du Soldat," was opened yesterday afternoon at 5 Boulevard de Strasbourg, by Colonel and Mme. Peyron, of the Salvation Army. This new club, which adds one more Salvation-Army home for the Allied soldiers, helps to fill a need in accommodating the great number of soldiers that are arriving in Paris every day and find it impossible to secure rooms.

The premises have 20 beds, with nice washrooms, and provided with central heat

<sup>1</sup>It should be kept in mind that these letters were written months ago.—Ed.

throughout the building; there also are bright writing- and reading-rooms. No meals will be served except breakfast; tea and coffee, though, will always be obtainable by those wanting refreshments.

Commandant Matter presided at the opening-exercises yesterday and spoke of the work of the organization. Colonel G. Marescaut, the officer commanding the British troops in Paris, General Price, commanding the Central area, and General Hearts, the commanding officer of the American troops in Paris, spoke of the excellent work that had been accomplished by the Salvation Army at the front and in Paris. They spoke especially of the "Cercle du Soldat" in Marseilles and that in Strasbourg.

Both the Minister of War and the Military Governor of Paris were represented, as was the minister of the Interior. Captain Blunt, a chaplain of the Forces, also spoke feelingly of the work of the Salvation Army.

According to plans outlined at the opening of a three-day conference of the Atlantic division of the American Red Cross, 20,000 nurses, after they return to the States from overseas-service, will be utilized in an educational campaign, to organize classes in the home, for the study of hygiene, the care of the sick, and general home-duties.

The Knights of Columbus Overseas Minstrel Aggregation, a troupe of more than sixty well-known performers, have been playing to crowded houses at the Théâtre Comédie during the past week.

The enthusiastic reception of the organization on its initial week of a tour that will include every important location of troops in France, was very gratifying. The shows were, of course, for the members of the second Army, now stationed in Toul, still, the audiences included also hundreds of soldiers here on leave. The show is complete with up-to-date costuming, stage-setting and lighting-effects. The cast is made up of soldiers, sailors, marines, and K. of C. secretaries, and, as they are becoming accustomed to the difficulty of staging such a production in the quarters available, the entertainments are going with a real snap.

In carrying out the determination of the K. of C. to see that all of the men in the A. E. F., have an opportunity to see the

show, the organization has been divided into lesser units, and, during the present week, will complete a circuit of camps and smaller centers in the Toul sector. These units are so arranged that a full evening's entertainment may be given, and they are being sent to the various points under the direction of an area-entertainment officer.

The whole activity of the organization is under the direction of manager J. B. Fearon. Following the present-week's program, which includes Conflans, Gondrecourt, St. Mihiel, and Sazerais, the units will report to Manager Fearon at Pont à Mousson, where the entire company will again produce the minstrel show for three nights.

W. Frank Persons, who recently resigned as General Director of War Relief for the American Red Cross, is to go abroad to make a study of investigation of the worth of the various American Relief activities started in European countries and which are now seeking support here.

In a list issued by the National Investigation Bureau, more than thirty relief-organizations have been approved as worthy.

City of Paris statistics for last week show that the total number of deaths in the capital was 1,894, as against 1,457 during the preceding week, and of 1,076, the average for the season. The number of deaths ascribed directly to influenza is, 358.

After four years of ceaseless and exceedingly valuable work for the wounded "poilu," the Hôpital Français de New York, at Passy (Yonne), has been handed over to the French Service de Santé Militaire, 5th Region. Ever since 1914, this hospital in the fine old sixteenth-century chateau of Passy, has been administered and supported entirely by the Société de Bienfaisance Française de New York, and was handed over on Saturday only because the Society's voluntary agreement for the duration of the war has expired. It will in future be used as a sanatorium for tuberculous French soldiers.

There was a large company present, on Saturday, at the farewell-lunch given by M. Henri Chapal and the staff of the hospital. These included MM. Simonet and

Lucien Cornet, Senators M. Jobert, Deputy for Sens, and General Lemoine, Director of the French Service de Santé Militaire, 5th Region; Leroux, commanding the battalion d'instruction; Mme. Laladini, sister of M. Jouvand, president of the Société de Bienfaisance Française de New York Doctor May, of the Orléans Franco-American section, Major Pierre Barges, medical director of the hospital, Doctor Wright, of New York, one of the medical staff. The American nurses attached to the hospital also were present.

A lunch so admirably cooked that the chef, a soldier in the French Army, must surely have jeopardized his chances of demobilization, fortunately was not followed by the withdrawal of the ladies, all of whom had been personally interested in the work of the hospital.

M. Henri Chapal opened the toast-list by drinking to the United States. Senator Cornet seconded and paid a warm tribute, not alone to the magnificent work that had been done by the American Army, but, also, to the special work of the hospital and the Société de Bienfaisance Française.

Doctor May, in replying to this toast, declared that his countrymen, in espousing the cause of world-freedom, had also done something toward repaying America's debt of gratitude to France and Lafayette.

After Doctor May had raised his glass to France, a final toast was proposed by M. Chapal, who drank the health of M. Jouvand, president of the society, addressing himself more particularly to Mme. Paladini, M. Jouvand's sister.

M. Louis Maurier, Under-Secretary of State for the French Service de Santé, arrived soon after lunch, having arrived by automobile from Paris. After having visited the hospital, he presented a number of decorations to the staff. Major Pierre Barges was presented with the Cross of the Legion of Honor, while the following American nurses were, each, decorated with the "Médaille de Dévouement," in recognition of their self-sacrificing services in the hospital during the past four years: Mary Kennedy, Florence Gordon, Camilla McCormick, and Ruby Rodgers. A like medal was awarded to Mlle. Yvonne Retiff and Mme. Longuet, wife of the Mayor of Passy. Lieutenant Wright, assistant surgeon at the hospital, also was decorated.

M. Maurier, in the course of a speech that closed the official proceedings, expressed

the "profound gratitude of the entire French people" to their friends of New York. The hospital at Passy, with its wonderful surgeons and its perfect appliances, had done invaluable work for France and the French soldiers, and thanks were particularly owing to Mrs. Fitzgerald, to Mr. Waters, and other members of the Société de Bienfaisance.

After one year of entertaining American soldiers on leave of absence, Aix les Bains, the first leave-area established in France, is proud to have them as guests, and of the leave-area plan, not only as resulting in pleasant vacations for the boys, but in a stauncher friendship between France and America.

Those were the facts brought out last night in the celebration of the first anniversary of the opening of the area. Representatives of the American army, the Y. M. C. A., and the town of Aix les Bains participated in the ceremonies, in recognition of the cooperation between the three in the great work that has been done for the soldiers here.

It was only a little more than a year ago that the Y. M. C. A. recommended the establishment of a leave-area here and the general policy of establishing other leave-areas in the "show"-places of France. The army approved the plan, and the first permissionnaires (soldiers on leave) arrived on February 16, 1918. The citizens welcomed them cordially, and many of the men, when leaving, said that their seven days gave them a new understanding and appreciation of the French.

The famous baths, in use since the time of the Romans, the winter sports on Mount Révard, and all the pleasures that tourists long have sought here delighted the permissionnaires. The Casino, second only to that at Monte Carlo, had been converted into a replica of "The Palace of Delight" in Besant's novel of "All Sorts and Conditions of Men." There the Y. M. C. A. gives as many as twenty entertainments a day and provides all the pleasures of a club.

M. Termis, premier adjutant of Aix les Bains, spoke for the city and the province of Savoy; F. S. Edmonds, head of the leave-area department of the Y. M. C. A., spoke for that organization, and Col. Charles G. French, commanding officer of the A. E. F. here, spoke for the army. M.

Termis said that the citizens had found pleasure in taking the American soldiers into their homes and that their gentlemanliness there had endeared them to the citizens as much as had their heroism at Chateau-Thierry, Belleau Wood, and Saint Mihiel.

Mr. Edmonds thanked the army for its fine cooperation in all the efforts of the Y. M. C. A. there and thanked the French citizens for extending to the "Amexes," not only hospitality, but, the companionship of high ideas and the friendship of ladies and gentlemen. Colonel French thanked the citizens of Savoy for the fine spirit they had shown the American soldiers.

B. SHERWOOD-DUNN.

Paris, France.

### RED CROSS NOTES

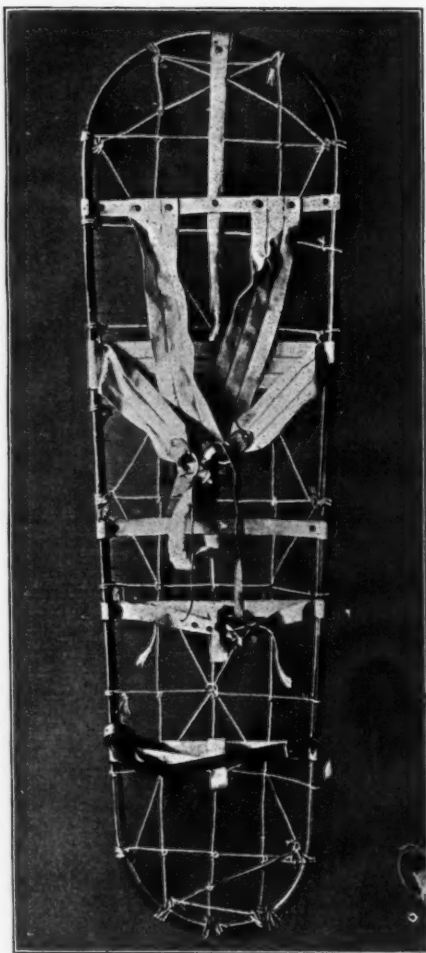
*The Red Cross Splint Department.*—Of all the services performed by the American Red Cross for the American Expeditionary Forces, none met a greater need than did the splint-department. Among 50,000 wounded men, there is a percentage of 40 fracture-cases; accordingly, when the army went overseas, agreement was made whereby the American Red Cross should supply the splints; and the army placed with the organization an order for 462,350 splints. Of this number, 294-583 were shipped before the signing of the armistice canceled the remaining number.

At a conference of Medical Officers called by Colonel Bradley, Chief Surgeon of the A. E. F., the types of splints to be used were announced as follows; the Thomas Tractor-Arm, the Sinclair Modified Thomas Arm, Jones Humerus Tractor; Jones Cock-up Wrist; Thomas Traction-leg; Hinged Half-Ring Thigh and Leg (Blake-Keller); Long Interrupted Liston; Anterior Thigh and Leg, Cabot Posterior Wire Leg; Ladder Wire Splints; Balkan Frames and Accessories; Galvanized Net Wire Gauze; Maddox or Bradford Frame and Clamps.

Much difficulty was experienced in obtaining material for the manufacture of the splints, but, the problem was solved by the Purchasing Department of the Red Cross. Orders were placed with the John Thorne Company and with the British Red Cross, being distributed among various factories. The weekly production aver-

aged from 15,000 to 22,000. The largest order given by the army during any one month was placed August, 1918, and was for 353,000. There were 205 tons of steel used in the manufacture of the splints.

A manual of drawings of the standardized splints was published by the Red Cross. It was later recalled by the army,



A Useful Red-Cross Litter.

revised, and republished in February, 1919, and is to continue in use.

The Red Cross also provided for the storing of the splints, by taking over a warehouse in Paris and placing it in charge of Major Arthur Kelly. Eight laborers were employed here, and there



were times when as many as one carful of splints a day left the warehouse, which was open from 7:30 in the morning until midnight. To facilitate shipping, the cases were standardized. From December 1 to 14, 1917, there were shipped 8085 cases, having a total tonnage of 575,064.6 which did not include packing material or racks.

Several new appliances were developed as a result of war-needs; the first was the Trench-Litter or Snowshoe-Litter invented by Lieut.-Col. Garcia of the U. S. Medical Corps. This litter is made like a huge snowshoe, on which the man can be strapped and carried through the narrowest of trenches. (See Fig. on p. 862).

Stretcher-bars were next made, to raise the leg of a man wearing a Thomas splint to the desired angle when being conveyed from the front to the evacuation-hospital; for, the Ford ambulances would not permit a man wearing such an appliance to lie flat in the ambulance. Its success caused the Army to increase its order from 500 to 1,000.

A wire leg-rest, to raise the limbs of patients in the hospitals, also was devised by Major Kelly, one that would fit either arm or either leg. Of these, the army ordered 3300. The Splint-Department also produced a special adjustable strap, which facilitated the placing of a Thomas splint for the stretcher-bearer on the field.

*Public Health Stressed on Red-Cross Peace Program.*—Public Health is to be stressed on the peace-program of the American Red Cross, which has recently been outlined by Henry P. Davison, chairman. A campaign to enlist the sympathies of the people in a public-health crusade is to be conducted, with a view to arousing public opinion to an appreciation of, and a desire for, higher standards of civic sanitation and to the necessity of establishing Red Cross public-health nurses in cities and in rural communities.

During the war, the Red Cross worked in conjunction with the United States Public Health Service, in establishing sanitary units in thirty-two cities near camps, cantonments, and naval bases. The organization supplied equipment for the laboratories, bacteriologists, public-health nurses, and the serums and medicines necessary for the conduct of their work. For this purpose, an appropriation of \$526,906.12

was made for the six months ending in June. Of this amount, \$100,000 was spent on the prevention of communicable diseases.

The Red Cross has been requested to continue acting in cooperation with the Public Health Service at the ports of the United States. The purpose is, to prevent the admittance into America of immigrants infected with cholera and typhus. The prevalence of these diseases in the war-ravaged countries overseas, together with the fact that many are coming from them to America, makes the situation a serious one for this country.

Both the foreign-service organizations of the American Red Cross and those operating in this country will take part in this work. Explicit instructions will be sent out to the personnel of all commissions and units. All information will be wired, in order to insure the utmost promptness and efficiency.

Col. Robert E. Olds, American Red Cross Commissioner to Europe, has been one of the most eager agitators of the plan, which has won the hearty approval of all concerned.

## MATERNAL IMPRESSIONS

When one is bold enough to prefix the above caption to a manuscript, in the face of the almost interminable arguments both, for and against maternal impressions, which are crowded into medical literature from the earliest records to those of the present day, he takes chances of being termed a "has been" or accused of slight acquaintance with the desirable medical literature.

However, my story is short. It deals with a very recent personal observation and is offered for publication in *CLINICAL MEDICINE* because physicians frequently are drawn into controversy on this subject which contains some interest for every true student of medicine and its companion science, biology.

Some years ago, a brother physician, before leaving to take up his residence in Arizona, gave me a male canary, an attractive bird and a fine singer. Bird life always had interested me, yet, I never had seen cage- or domestic canary birds in the breeding season and while raising their young. The following spring, I bought a female of equally good breeding and, mating these, I found much to interest me in

watching them rear several broods of young during that season. I had many requests for the young singers, they being low-voiced and having songs of unusual length and many changes. So, I gradually increased the number of mating birds and, in 1918, I raised more than one hundred young which were accepted by the Gas Defense Division of the Army.

The canary is credited with being more susceptible to noxious gases than any other living creature, the white mouse coming second. Thousands of canaries were used by the armies in France to detect the presence of gas in the trenches.

In the seven years of my experience with the birds, not all the chicks hatched were raised, but, I never found a crippled or a deformed chick among the many scores of nestlings.

During the last, the eighth season, I mated only five pairs. The canary is not strictly a monogamist as is the pigeon, but, I have not permitted promiscuous matings. I have kept the same birds mated throughout the nesting period of, usually, from four to six broods. The breeding cages remain in the same locations, the environments remain virtually the same and the feed and care varies only according to conditions.

By the first week in July of this year, three of the matings had each resulted in two broods and the hens had their nests ready for a third laying of eggs.

At this time, the Aviation department was recruiting here and one of their flyers made daily flights over the city. Whenever the great, hawk-like appearing machine could be seen by the birds, the males would whistle a terrifying cry of danger and, almost instantly, every bird in the room, old and young, would be huddled in some part of their cages, trying to hide, trembling with fear and fright.

At the end of the week, the three nests held twelve eggs, all laid during the time of the aviator's daily flights. Seven of the eggs hatched; the others had not been fertilized. *Every chick of the seven was deformed.* Three had no anal vents and died within a few days. Two had extra pairs of wings with immobile joints. These remained in expansion continuously and brought to mind at once the wings in the usual illustration of "Winged Mercury".

These extra wings were attached at the very apex of the shoulders.

The legs of the other two were twisted and held at full length beneath the bodies, like legs of wading birds in flight.

*The same three pairs of parent birds have raised two broods each, since, and there was not a crippled or deformed chick among them.*

The fact related in the foregoing having occurred in the family of *Ovipara*, supplies the strongest possible evidence favoring the actual operation of maternal impressions that has come within my observation.

W. F. SCHRADER.

Fort Wayne, Ind.

[This is a very interesting observation which possesses all the value of a definite experiment taken with all precautions against error. Above all is it to be recognized that the factor of "coincidence", that usually renders similar observations in humans so difficult of interpretation, is absent. During several successive breeding seasons, the parent birds had hatched only perfect chicks. It was only when they experienced the terrifying observation of unknown flying things that both the male and the female birds were subjected to a serious fright and that their progeny were deformed. Subsequent matings again resulted in perfectly formed chicks; notably: after the disturbing element of the flying airplanes no longer was active. With these data before us, can it be said offhand that this was just chance and that "there is nothing in it?" It seems. *and this observation recorded by Doctor Schrader is deserving of careful consideration.—Ed.*

#### NEEDLESS PRESCRIBING OF ANALGESICS AND NARCOTICS

I prize your journal highly. It comes to my office loaded with a lot of good meat for the average physician who can appreciate a good thing when he sees it.

As regards the physician doing a general practice, he will get hold now and then of a patient, respectable in every way, but, who, for one reason or another, has become addicted to the use of morphine or some other narcotic. Under the existing laws aiming to control the sale and prescribing of narcotics, the druggist may not

sell such drugs, except on a prescription written by a lawfully qualified practitioner, while, on the other hand, the physician is left to judge as to whether he is justified in writing such a prescription or not.

Take a typical case under my care just now, that of a young woman who acquired the morphine habit by reluctantly using an opiate, on account of painful menstruation caused by a pinhole os. The parents, at the time, were ignorant of the cause of the girl's severe suffering. The doctor that was consulted, without making a physical examination, prescribed aspirin—a remedy that cures nothing, while being a dangerous drug in the hands of the common people. Indeed, in my estimation, aspirin causes more deaths than does morphine; for, the latter stimulates the heart's action, while aspirin is a depressant and interferes with the heart's action; the lips and finger-nails become purple and there is difficult respiration after an overdose of aspirin. The longer one takes aspirin, the more the dosage must be increased. Then, why not stop the indiscriminate sale of aspirin, as it is more dangerous than morphine?

A majority of the druggists display on their showcases an attractive advertisement of certain now very popular headache-tablets. Any boy or girl, anybody, can buy this vaunted pain-reliever. That headache-remedy contains aspirin or acetanilid, the initial dose being named as 4 grains, and, thereafter, as 2 grains every hour until relieved. Many doctors prescribe or dispense this remedy for fever, ordering one tablet or more each hour until the fever subsides. Is that intelligent practice?

But, I digress from my typical case, above referred to. That young woman came to me accompanied by her mother. After eliciting a full history of her condition, I told the two that I could not arrive at a positive diagnosis, unless I made a physical examination.

I found a healthy condition of the reproductive organs, except that the os uteri was greatly contracted, not admitting the passage of the smallest probe. I made a tent of dried slippery-elm bark, made it very smooth, softened it in warm borated water, attached a small silk cord to its outer end, and then, by careful manipulation, managed to slip it to its full length of  $3\frac{1}{2}$  inches into the os. I then placed a tampon of cotton, moist with borated-lobelia-

solution, against the os, in order to hold the tent in place. This was to be removed after about forty-eight hours. Thereafter, she was to take a hot-water douche of one-half gallon and containing 1 ounce of magnesium sulphate, repeating this every night and morning.

I continued this treatment for three months, gradually enlarging the elm tent until I was able to introduce a tent half an inch in diameter and 4 inches in length with an apex of  $\frac{1}{8}$  inch in diameter.

Before I saw this girl, her doctor had supplied her with a hypodermic syringe and morphine tablets of  $\frac{1}{4}$  grain to be used to relieve the pain. She thus became a confirmed addict to morphine and was using  $\frac{1}{2}$  to 1 grain of it whenever she wanted to feel good—used it as a bracer. Thus I found her.

Before the first treatment, I injected 1 grain of morphine with  $\frac{1}{15}$  grain of strychnine nitrate, took her syringe and morphine away from her, and ordered her to come to my office every day for a similar hypodermic injection. I reduced dose gradually each day, until, at last I substituted a placebo. At the end of three months, I told her that she had not had any morphine for a month.

While weaning her from the morphine, I gave her, from start to finish, the following mixture, using Lloyd Brothers' preparations:

Specific medicine of pulsatilla	1 dram
Specific medicine of hyoscin-	
mus	20 drops
Specific medicine of cactus	
grandiflorus	2 drams
Specific medicine of gelsemium	2 drams
Specific medicine of macrotys-	4 drams
Specific medicine of caulophyl-	
lum	2 drams
Simple elixir, enough to make	
8 ounces.	

Dose: teaspoonful before meals and at bedtime—mixed in cold or hot water as desired.

This was intended also as a general tonic. In addition, I also gave an elixir of quinine, iron, and strychnine, a teaspoonful after meals, diluted with water. Besides, I prescribed the indicated remedy for the bowels and other conditions.

At the end of three months, I had this patient well in every respect, free from the morphine-habit, and with normal and painless menstruation.

Now, is not this method of treatment more rational than the all too common

practice by way of the morphine-aspirin-acetanilid route? Is not this better for the patient than the indiscriminate use of the knife, so often resorted to for the augmentation of the surgeon's bank account? Many practitioners get into a rut and stay there, never learn to think, letting some medical society dictate to them. There are no strings on your humble servant.

J. E. CALLAWAY.

Chillicothe, Mo.

[It is cases like the one described by Doctor Callaway that the Harrison law is intended to prevent. Surely, nothing can be more reprehensible than the carelessness of the first physician that had supplied the young girl with a hypodermic syringe and with morphine tablets, leaving it to her discretion to use this potent and dangerous remedy for the suppression of her menstrual pain; while knowing fully well that, in all probability, the legitimate use would soon be superseded by an illegitimate employment. Dysmenorrhea never is treated properly by means of morphine injections and it might justly be expected that no physician would be guilty of such a foolish procedure as is outlined by our correspondent. Certainly, his own treatment was followed by good results and proved that the resort to morphine was entirely needless.]

As for Doctor Callaway's strictures on aspirin and the coaltar products, we have repeatedly pointed out that their indiscriminate use is foolish and injurious. On the other hand, it can not be denied that these remedies possess great possibilities for good, and very often have been the means of relieving conditions that were distressing and might have developed into serious disease.—ED.]

#### AN OLD PRACTITIONER'S PLAIN

IN CLINICAL MEDICINE for October (page 728) there is an article by Dr. W. W. Lasley, of Lewisburg, Ky., that I fully endorse all the way through. To make myself understood, let me say that I am now treating a man, an addict to the use of morphine. I am almost afraid to buy just what narcotics I must have to cure a case of this kind, for fear some druggist might report my purchases to an Internal Revenue Inspector, who might come and

investigate the case to find out whether I am using narcotics legitimately or not.

I am debarred from giving my patient a dose to take home with him for use at bed time. If he comes to my office for his required treatment, at stated hours, and if I am busy with other patients, he must wait, though he be a busy, hard-working man. He may perhaps lose an hour or two waiting for his doctor to administer the required dose. The Harrison law says that you must give the medicine personally. While I know that my patient is an honest man and very anxious to be cured, and that he would not abuse my confidence by using larger or more frequent doses than directed, still this law says: thus far and no farther shalt thou go.

Supposing I am treating a case of severe neuralgia, the patient coming to my office, suffering pain so harassingly intense that I deem it absolutely necessary to administer, say,  $\frac{1}{4}$  grain of morphine sulphate with 1-150 grain of atropine sulphate; although this patient resides miles out in the country, I am absolutely prevented by law from giving him two or three doses to take home, to be used only in dire need. This law is against the best interests of both the doctor and the patient.

True, opiates do not cure, but, they do relieve pain, causing the patient to obtain much-needed sleep and rest. Treatment by narcotics is necessary in a great many cases, for a time, until you can give the remedies that cure. After that, the narcotics are not needed, not even wanted, by the patient.

Now, a little personal experience: I began the study of medicine in the spring of 1857, in my preceptors' office, where my duties were many; from keeping the office clean to making pills, tinctures, syrups, and studying Gray's Anatomy, one or two hours each forenoon, and theory and practice in the afternoons. The next day, I would stand quiz. Gradually, I learned to administer indicated remedies and, in course of time, my preceptors promised to take me into partnership. But, then, I had only a very common school education, though I had taught two terms of school of three months each. However, I practiced medicine until the autumn of 1860, when I entered a medical college, attending a six-months term, whereupon I

graduated. I have practiced medicine ever since and am now in my 84th year. I still am in the harness and do not lose to exceed 2 percent of all the cases of flu, pneumonia, typhoid, diphtheria, croup or any ailment I treat. Yet, my competitors who have spent thousands of dollars to learn how to use the knife but know mighty little of how to treat and cure diseases, lose 10 to 25 percent of all cases they treat. If a patient of theirs has a belly-ache they pronounce it appendicitis, and hurry him off to a hospital for operation. I could call attention to hundreds of cases where pseudodiagnosis has failed, the non-indicated remedy given, an acid prescribed when an alkali was the remedy. They say, let me see your tongue, and in two minutes they cannot tell what the tongue revealed. They do not know just how to read the tongue. If a patient has a little fever, slight abdominal tympany, they say typhoid fever, then to the hospital, ice packs, then the undertaker is called.

Chillicothe, Mo. J. E. CALLAWAY.

[While, undoubtedly, the restrictive legislation concerning narcotic drugs works some hardships to physicians and patients, its effect, as a whole, is decidedly salutary. Certainly, we have found that we can do much, for relieving pain, without having recourse to morphine. We suggest that our correspondent, and others, read with care the discussion by Doctor Blair appearing among the leading articles in this issue. It throws an important light on the subject.—Ed.]

#### HEREDITARY SYPHILIS OR TO- BACCO- AND ALCOHOL POISONING

While I was much interested in Doctor Hutinel's article on "Hereditary Syphilis," it seems to me that his paper is very obscure, and that many of the Doctor's conclusions are dictated wholly by his imagination.

In early childhood, hereditary syphilis is easily detected and, if it is not recognized and is not energetically treated, it becomes rapidly fatal; moreover, it is not as common as one would conclude from reading the Doctor's paper. On the other hand, the hereditary effects of alcoholism and nicotine are universal and the neuro-pathic and sclerotic circulatory degenera-

tions described by Doctor Hutinel are almost wholly due to the hereditary effects of those two drugs. For, it is well known that the hereditary influence of alcohol is expended almost entirely on the nervous system, while that of nicotine affects the circulation. The effects of these two drugs now are so well known that there is no need for any guesswork about it. Of the two, nicotine is decidedly the worse, it being the most destructive enemy of the human race.

For instance, if both parents are under the influence of alcohol when conception takes place, the offspring usually will be idiotic or epileptic. I have personal knowledge of four such cases in large families and in which an idiotic child appeared at a certain time, the rest of the children being very bright. As to the effects of nicotine addiction, I have recorded my observations in an article on that subject in the *Medical World* for last August (page 279).

No, Doctor Hutinel, hereditary syphilis begins to manifest itself later in life, at puberty and during the climacteric, when glandular troubles become numerous. Many years ago, Virchow expressed the opinion that goiter was caused by hereditary syphilis, and I began at once to work out a plan of treatment along the line of his suggestions, succeeding remarkably well so that, a few years ago, I could publish my findings in *CLINICAL MEDICINE* (April, 1917, p. 302) under the title of "The Antiluetic Treatment of Goiter".

I want to assure Doctor Hutinel, from the results of my own study of hereditary degeneracy of childhood, that for every case due to syphilis there are 100 due to alcoholism and 1000 due to nicotine. A thorough study of the subject will astonish the good Doctor and will result in a world of good to the human race.

Miles, Iowa. W. A. MARNER.

[We are unable to say whether the percentages for the hereditary effects of parental alcoholism and nicotine as against those of parental syphilis, as claimed by Doctor Marner, are based upon actual figures or upon unrecorded clinical experiences. Those given by Professor Hutinel are determined by the data contained in exact hospital records supplemented by laboratory examinations of the blood and



spinal fluid of the children. Professor Hutinel is not the only syphilographer who attributes to lues venerea such terrifying consequences that are active even in the third or fourth generation.

In this connection, an editorial review, in *American Medicine* for October last, is of interest. While Blackfan, Nicholson and White reported on the examination of 101 infants in a foundling hospital, with only 2 positive reactions to the Wasserman test, Holt reports that, in 178 hospitalized children with no definite signs of syphilis, about 6.1 percent were adjudged to be syphilitic. However, DeBuys and Loeber determined the incidence of congenital syphilis, in 106 infants in a foundling institution, to have been 83.96 percent of which 74.53 percent were revealed by means of the luetin reaction, only 9.43 percent being diagnosed on the basis of the clinical findings and syphilitic eruptions.

We believe that, just as in the case of tuberculosis in the parents, so parental syphilis produces in the offspring evidences of degeneration that may assume varying degrees of severity from rapidly fatal, acute disease to mere stigmas of degeneration. While formerly it was believed that both, hereditary syphilis and "hereditary" tuberculosis (which latter, though, is not transmitted by heredity as disease) manifested themselves especially at puberty, it has been proved by ample tests that these manifestations can and do declare themselves in infancy as well as in early and in later childhood.—Ed.]

#### IN MEMORY OF THE LATE DOCTOR TAYLOR

Well do I remember the introduction given that young prodigy, the little "ALKALOIDAL CLINIC", by Dr. C. F. Taylor of the *Medical World* in, about, the year 1895. This rapidly developing "CLINIC" finally became the present AMERICAN JOURNAL OF CLINICAL MEDICINE.

At that time, Doctor Taylor was an advocate of the populist party's political measures since adopted by the democrats and progressive of all parties throughout the Union. He and I held much in common politically even to the day of his death.

The medical profession owes much to Doctor Taylor. He ever stood between them and exploiting financial sharks who looked upon the average doctor as easy prey. The true ethics of our profession he ever held up as his guiding star in his literary and business career. His heart always was tender and responsive to the wants and conditions of his brother physicians.

Doctor Taylor's love was not confined to his family and professional brethren, but embraced his native land, and, lastly, the whole world.

If I remember rightly, his plan of a *League of Nations* antedated that of President Wilson, and was much superior to it. The one now under consideration by the U. S. Senate is simply a "League of Governments", whereas that proposed by Doctor Taylor was a Congress of the Nations composed of delegates of, and from, the different peoples, that would see to it that peace was preserved in justice.

A. T. CUZNER.

Gilmore, Fla.

#### OPPOSED TO VIVISECTION AND SUCH

I believe in democracy, even in the medical profession. It is time that we had freedom of speech in our own medical ranks. The people have a right to know the truth.

I read with much interest the letter from Dr. F. H. Todd, of Cleveland, Ohio, against vivisection. There was a time when I was as orthodox a physician as any and believed in vivisection, vaccination, serum-therapy, and the like; but, I have experienced a rebirth. I believe now that vivisection and serum-therapy have done more harm to the human race than all wars since the dawn of history.

Vivisection is unscientific, unnatural, cruel, and abhorrent. Still, I "agree to disagree" and am willing to grant every honest man "a hearing," irrespective of his opinion. CLINICAL MEDICINE is to be congratulated in allowing discussion on such a subject as vivisection.

SIMON LOUIS KATZOFF.

Bridgeport, Conn.

# Just Among Friends

A DEPARTMENT OF GOOD MEDICINE AND GOOD CHEER FOR THE WAYFARING DOCTOR

Conducted by GEORGE F. BUTLER, A. M., M. D.

[Continued from November issue,  
page 805.]

## The Actual and the Ideal

OF course, the efficacy of this knowledge lies, perforce, in its thoroughness; for, if it is not well understood, the letter deposes the spirit and chaos ensues. When a man says to me, "Join our crusade against vice" and I answer, "I believe in nonresistance," I am by that answer resisting him. None but the understanding soul can remain above such circumstances as these. The question everywhere is, "With what motive do I act?", and, it is not the least of human perplexities for us to be always, or even frequently, sure of our own singleness of motive. Moreover, we may be certain that the world will judge us by the worst that is known of us, rather than by the best, unless we win some great victory for it, and then it will not judge us at all: it will worship us.

Moreover, whatever we may attempt to say or to write, we can never put our whole meaning in words; for, language is not commensurate with thought, and the higher the thought, the more will our attempted expression of it in words be misinterpreted and obscured. Antisthenes could get nothing better from Socrates than cynicism. It is true that from the same teaching Euclid got something else, Aristippus something still different, while Plato received something quite different from them all. This, however, is proof that ears to hear are as necessary as voices to speak, that words may have little effect—that it is spirit to spirit that talks the intelligible language. Even men's acts are, by no means, conclusive proofs as to their convictions, and it is said that more men have made themselves martyrs to obstinacy and pride and anger than have suffered, at the stake or otherwise, from adherence to principle. These anomalies are commonly seen in disputants who, though they may have begun the argument primarily to

learn or teach the truths of some matter or other, having committed themselves to an opinion, forget their original object and argue each for victory, truth or no truth. This was the sin of Ananias, something different from a spoken falsehood, for, his error consisted in attempting to deceive the law as he deceived the law's officers. In his story, as applied to arguers, we see that happiness and the real victory lie in our adherence to truth rather than in the humiliation of our opponent and whether we win the argument or lose it. Indeed, there would be something sweet and satisfying and virile, something strangely like victory glowing from the very ruins of the overthrow that had been suffered for love of truth and lack of subtlety, were such an overthrow possible; "as to be naked is to be so much nearer the being a man, than to go in livery," to quote Charles Lamb's rather involved phrase.

The cure for these diseases is in nobility of soul—not somebody else's soul, but, mine, and yours—my cure in my soul, your cure in your soul. If any difficulty lies in apprehending how this may be, how one man's wisdom and purity can protect him from another man's ignorance and vice, it is because there is an edict of nature, to the effect that none of her children shall usurp another's prerogative. Therefore, the only way in which a person can estimate properly the resources of a wise and good man is, to be a wise and good man himself.

Neither is this condition difficult of attainment. "We can do our best easiest." We need only to have the real desire, and immediately all the powers of heaven and earth set themselves at work in our behalf. Every object of nature, every tree, every flower, every stream, lake, hill, and valley, every beast of the wilderness stands mutely or musically showing the way. Each

lives its own life, with no pretensions, no concealments, its sole object, to fill its proper sphere, doing its best to become a good lily, a good oak, good corn, yes, a good weed or a good snake, if that be its station in the cosmos—and who shall say which among them stands best beloved of the great Mother Nature!

This is the secret that Nature whispers to her lovers: "Do thy best as it is given to thee to do it; for, though that best should be only third rate, or tenth rate, or millionth rate, if it is, indeed, thy best, the rest is already looked out for." This it is that constitutes a wise and good man, this is nobility of soul, and it is all we know of happiness. For, then, though

Foolish hands may mix and mar,  
Wise and sure the issues are.

For, there's no sequestered grot,  
Lone mountain tarn or isle forgot  
But Justice journeying in the sphere  
Daily stoops to harbor there.

This sentiment, I am well aware, will be regarded in many quarters as a relic of the golden age of man, not applicable now, in the midst of the turmoil and confusion and rapacity of the twentieth century, when each man is supposed to be for himself and the devil owns the vast majority of us body and soul. In the good old times, it may have been so, but, now—

It seems pertinent at this point to consider what was the "Golden Age"—what is meant by "the good old times".

From time to time, there appears in print or on the street reference to "the good old times", but, a careful search of annals fails to locate those times. Regarded on the mere plane of physical comfort and freedom of life, one says, the good old times were in the days of stages, before the advent of locomotive engines, with their noise, dirt, vulgarity, broken limbs, and loss of life. Then, in those days, says he, how delightful it must have been to roll on smooth wheels behind a spanking team through a beautiful country, to the accompaniment of bugle and merry laughter, with rich conversation and a carefree soul. A pleasant picture, truly, and we, too, begin to regret those good old times, until we find, through certain histories, that the coach of those days stood the material essence of discomfort, tardiness, dirt, vulgarity, and profanity. Another maintains that the good old times

were when state officials were honest men, who took office from motives of pure patriotism, and not, as now, for the spoils. If then we look, in back-number newspapers, diaries, and memoirs, for the annals of those times, we find the "good old times" always a little further back. And, if we keep up the pursuit away back to the beginning, in our own country—to say nothing of other nations—we find the contemporaries of Washington and Jefferson themselves lamenting those good old times, stigmatizing him whom we now call "the father of his country" as "the source of all the misfortunes of our country" and attributing to Jefferson war, vice, infringement of the constitution, and the destruction of liberty!

This looking backward for all that is great and good is the disease of broad humanity. It was the same in Europe, in Rome, in Greece, in Asia itself, the very cradle of our infancy. All nations speak regretfully of the golden age. The one fatal fact loading down every page of history is, that this pure and delectable age always was before the present one. So, men say their childhood days were their happiest. They forget the long rainy days, the mortal terror of the dark, the deathly fear of surely coming punishment for some offense committed, the hatred of school, the loathsome illnesses, the rebellion against rules, the long, long drudgery of the chores while the other boys were playing on the green, the wild longing to become free and independent like men, the sickening, longdrawn, interminable deferment of that hope and promise. God is good. He has so constituted us that we forget the bitter, while remembering principally the sweet, which, in our minds, grows sweeter with the years.

This teaches us nothing if not that the good old times are now—or never. "Wisdom is more from the heart than from the head. Feel goodness, and you will see all things fair and good", says Shaftesbury. The times as they appear to each observer are, at bottom, his own spirit as he sees it reflected in others and in events. If today something comes that looks to me like sad misfortune, I may be certain that tomorrow, or next year, when I have more wisdom, I shall see that something

in a new light—may, perhaps, realize that it was, indeed, the only thing that could save me from ruin at just that time. For, what to the superficial eye is chance or is evil is to the seer a manifestation of law, law immutable, with which he must comply if he would be served by it, as he bends the sun and moon and stars and the principle of gravitation to his will by learning and obeying their laws.

If a man goes out to make hay in the rain, that is his fault, not the fault of the rain; and, if he sets his hour for sailing without consulting the tides, it is he, not the tides, that is to be blamed for naked flats and a motionless boat. So, in trade in art, in politics, in religion, in society, we see our intelligence continually opening the way or our ignorance blocking it. If tradesmen are dishonest, that hurts them, not you. They may steal your money, but, they can not touch your character, which, if it is properly balanced, will bring you money enough, no matter how much may be stolen from you. In case of any failure, there will always be found one of two things: either insincerity, the lack of character, is at the bottom of it, or else there is no failure. The apparent failure is a real success, needing only the stout heart and the virtuous mind to be recognized as such; for, the inexorable law that rules us in our manhood as a wise parent rules his child is that of sincerity, character. It has other names, also, such as love, truth, faith. We show our innate, involuntary belief in this fact by our attempts to imitate the quality when we feel ourselves to be lacking in it. But, that is a misshapen semblance of it which apes love or truth or sincerity, for, hope of material reward or fear of punishment, and the reward will be commensurate.

The true man, like the true soldier, fights for principle, not for the bounty or the pay. His life is his immortal work, his *magnum opus*, written in flowing characters in the streets of his city and the hearts of his friends. For, he is *real*, seeing the strength and beauty of truth

and not its policy, living as the trees live and the flowers, because it is joy to do so, and dispensing abundantly his fragrance of soul with never a thought or wish for material return, but, solely for the loveliness and delight of it. If such men are thought to be few, we know, nevertheless, that no age has been without them and that in the very nature of things more of them have lived and died unknown to fame than have been enrolled upon its scroll. Such men revere themselves and their contemporaries as other men revere their ancestors; for, theirs is the gentle, seeing eye, which recognizes in their poor plodding brother the same spark of celestial fire that burst so frequently into flames in the hearts of old and which will here again prove its divine origin, yes, in bootblacks and thieves, when the time comes.

The lesson is, that, while our ancestors and the gods of Greece were brave and mighty, we are brave and mighty, too; and, if we may step a little further, we should say, as our forefathers were found by their contemporaries to be commonplace, unknown as gods and heroes until they were dead, it were wise for us to profit by this example and look upon our own friends as heroic geniuses, even though they may be disguised, like Apollo, in a shepherd's rags.

In this way, we ourselves, may grasp the good that is in them, instead of leaving it all for posterity, the while we flounder around in the superstition and barbarism of a self-imposed stone-age, mistaking gentleness and purity for cowardice and weakness, as the blind fish of the Mammoth Cave mistake God's golden sunlight for evil and drop back woodenly into their habitual darkness at the approach of the merest ray of light.

And this brings us at once to a consideration of that anomaly without reference to which no word of the ideal and practical can be sanely spoken, yet, which too often is entirely ignored in such dissertations, namely, people.

[To be continued]

# Among the Books

## PUSEY: "DERMATOLOGY"

The Principles and Practice of Dermatology. Designed for Students and Practitioners. By William Allen Pusey, A. M., M. D. With 54 plates and 466 text-illustrations. Third edition. New York: D. Appleton & Co. 1917. Price \$7.00.

The author informs us that, in this edition, which is a complete revision, the chapters on pellagra and syphilis, have been almost completely rewritten; that on pellagra, because of the importance that it has assumed for us in America, and that on syphilis, because of the epoch in the knowledge of that disease that is constituted by the last few years. In addition, many subjects have assumed new importance and are discussed in this volume. Among them, are, the changes of the blood in skin diseases, autoserum-therapy, fulguration, infantile erythema of Jacquet, dermatitis from hair-dyes, dermatitis from formaldehyde, gonorrheal eruptions, balanitis gangrenosa, acute ulcer of the vulva, espundia, acauliosis, the skin lesions produced by bees, ants, flies, and gnats, blue atrophy of the skin, nodulary, necrotic dermatitis, dermatothalasia, nevus anæmicus, zoniform ecstasis, purpura annularis telangiectodes, leukæmia cutis, sarcoid trichotillomania, Moeller's glossitis, peradenitis, mucosa necrotica.

Doctor Pusey is one of the leading practitioners and teachers of dermatology, and his treatise is generally accepted as an authoritative one.

## SOUTHARD AND SOLOMON: "NEUROSYPHILIS"

Neurosyphilis: Modern Systematic Diagnosis and Treatment. Presented in 137 Case-histories. By E. E. Southard, M. D., and H. C. Solomon, M. D. With an introduction by James Jackson Putnam, M. D. Boston: W. M. Leonard, publisher. 1917. Price \$5.00.

The nervous manifestations of syphilis have been an object of intensive study

and investigation for a number of years and have received additional importance through the influence of the war. To present these problems, as they confront the general practitioner and the syphilographer, in the form of case-histories, is an undertaking greatly to be commended.

The study of the various case-histories is made exceedingly useful by the summaries and also by the questions added to many of the discussions. Altogether, this is a splendid work for the general practitioner who needs to inform himself concerning the mental problems of general practice. It is the general practitioner who first sees the patients that ultimately are referred to psychopathic hospitals and asylums. If he keeps an open mind and if he is sufficiently well informed, he may be able to arrest the progress and improve the prognosis of many cases that are amenable to appropriate treatment.

## LANE: "CHRONIC INTESTINAL STASIS"

The Operative Treatment of Chronic Intestinal Stasis. By Sir W. Arbuthnot Lane, M. D. Fourth edition, revised and enlarged. London: Oxford University Press. 1918. Price \$4.00.

Arbuthnot Lane's views concerning chronic intestinal stasis are, by now, well known to physicians the world over, as is also his method of dealing with this trouble, namely, by short-circuiting the colon. However, it would be a mistake to assume from the title that the book deals only with the Lane operation. On the contrary; it contains in its 15 chapters a discussion of a number of topics, all leading to intestinal stasis, which decidedly repay close study. We are sufficiently convinced of this to enumerate here the chapter-headings which are as follows: "The Investigation of Chronic Intestinal Stasis by the X-Rays"; "The Bacterio-Chemistry of the Small Intestine"; "X-Disease"; "A Remarkable Example of the Manner in Which Pressure-Changes in the Skeleton



may reveal the Labor-History of the Individual"; "The Anatomy and Physiology of the Shoemaker"; "The Great Bowel; from an Anatomist's Point of View"; "On Intestinal Stasis, Intoxication, and Subinfection"; "The Blood-Picture in Intestinal Stasis"; "Intestinal Toxemia and Loss of Accommodative Power"; "The Medical Aspect of Intestinal Stasis"; "Chronic Streptococcal Infection of the Alimentary Tract"; "The Investigation of Chronic Intestinal Stasis by the X-Rays"; "The Gynecological Aspect of Chronic Intestinal Stasis"; "Pyorrhea and Its Relation to Chronic Intestinal Stasis".

Most of the chapters have been contributed by authors other than the editor of the book. Among the contributors, we find the names of Sir James MacKenzie, Professor Adami, and Major A. White Robertson. One chapter that appeals to us as of especial importance is the last one on pyorrhea and its relation to chronic intestinal stasis.

#### HIRST: "GYNECOLOGY"

A Manual of Gynecology. By John Cooke Hirst, M. D. 175 illustrations. Philadelphia and London: W. B. Saunders Company. 1918. Price \$2.50.

This little manual ought to prove very helpful to the beginner in gynecology, and also to the doctor in general practice who has so many demands upon his time that extensive reading is out of the question. We all know the author who compels his readers to wade through a bushel of chaff to find a grain of wheat. By contrast, this volume is concise, complete, and systematic; while an excellent index renders its information promptly available. Doctor Hirst possesses the happy faculty of setting forth minute and practical details in comparatively few words, yet, without omitting anything important. Many of the textbooks on gynecology in the past were disappointing because of the omissions in regard to the minor ailments of women which form no small part of the material presenting itself to the family doctor. In the matter of illustrations, this volume has struck the happy medium. Many recent textbooks have been made very costly by extravagance in the use of expensive illustration. That may be good advertising but it does not help the reader. This error

has been avoided here without omitting anything really helpful.

#### HIRST: "OPERATIVE GYNÆCOLOGY"

Atlas of Operative Gynæcology. By Barton Cooke Hirst, M. D. 164 Plates; 46 Figures. Philadelphia: J. B. Lippincott Company. 1919. Price \$7.00.

This book is remarkable for various causes, one being that it is beautifully printed and profusely illustrated. Indeed, the author considers the illustrations to be an integral part of his work, since together with the text they enable even the student without previous operative experience to comprehend modern operative technic. It may be added that the illustrations are colored and show the separate steps of each operative procedure to perfection. They are splendidly executed and very clear.

The text has been subordinated to the illustrations, saving the reader's time and lightening the burden of obtaining a grasp of the subject. However, it must be said that the text is amply detailed for practical purposes.

The whole work is characterized by its practical value, the author, going at once to the business on hand, dealing with it decisively and lucidly. We rarely have enjoyed any work on operative technic so much.

Among the various points that the author makes, we may take out at random his insistence upon ample and horizontal light in addition to the illumination provided by a skylight. While approving of the tendency to have the operating room finished in a different color from the customary glaring white, Professor Hirst himself never has experienced any decided disadvantage from operating in the white operating room. However, a new operating room being constructed, he believes that a greenish-blue tint would be superior to the dark-slate or brown color seen in some modern operating rooms.

In the preparation of the patient, Doctor Hirst ridicules the common practice of smearing tincture of iodine on the skin of the abdomen, and then immediately incising it, with the confident assumption that it is sufficiently sterilized to prevent infection. An expert bacteriologist, he thinks, would

be amused at this assumption. Indeed, in a series of cases that he had tested, pathogenic bacteria were found in every one. Doctor Hirst's own method of disinfecting the skin preparatory to laparotomy, while cumbersome, seems to us exceedingly efficient. He also mentions the simpler plan carried out by Professor Edward Martin, in the University Hospital of Philadelphia, which is, to wash the abdomen with soap solution, wipe the skin with ether or benzine, and then rub it with five-percent solution of dichloramine-T.

Doctor Hirst's book must be seen and examined to be appreciated. We should call it distinctly a good "buy" and recommend it cordially to all physicians doing surgery.

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#### "ANNALS OF MEDICAL HISTORY"

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Number 1 of the second volume of the *Annals of Medical History* recently made its welcome appearance on our desk. A publisher's note informs us that, owing to the exigencies of the war, Volume 1 of the *Annals*, while bearing the date of 1917, was not completed until early in 1919. For this reason, the second volume will bear the date of 1919, and there are no issues for 1918.

The number before us fully bears out the promise of the first volume. There are some singularly interesting original articles, among them, a contribution by Dr. George W. Corner, of the University of California, entitled "Anatomists in Search of the Soul". Dr. Walter A. Jayne, of Denver, Colorado, writes about the medical goods of ancient Iran. Dr. John Collins Warren, of Boston, gives an account of the "pulmotor" of the eighteenth century, while Dr. James J. Walsh, of New York City, presents two chapters in the history of laryngology and rhinology. These are only a few of the many interesting articles, and it must not be forgotten that there are included in this number several poems by Dr. Charleton B. McCulloch. In one of these, he likens the (fe-

male) ambulance driver to the Valkyries of old.

The *Annals of Medical History* is published quarterly by Paul B. Hoeber, 67-69 E. 59th St., New York City, at a subscription price of \$6.00 per annum. It is edited by Dr. Francis R. Packard, of Philadelphia, and counts among the associated editors some of the most noted medical litterateurs of the day. While we are happy to receive evidences of the continued publication of this journal, the Reviewer finds it difficult to understand how it is possible to produce such a beautiful publication at the low subscription price asked. Since its purpose is devotion to a legitimate line of medical research, it seems to us that an endowment should be established for the continued publication of the *Annals of Medical History* and for the purpose of assuring it freedom from financial embarrassment. We venture to suggest that the Rockefeller Foundation might well and properly set aside a fund for the support of this truly meritorious undertaking, feeling certain that such an endowment would be money well spent.

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#### DYKE: "AUTOMOBILE AND GASOLINE ENGINE ENCYCLOPEDIA"

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Automobile and Gasoline Engine Encyclopedia. Tenth edition. Containing 532 charts, inserts, dictionary, index, and supplements on the Ford, Packard, Airplanes, and Liberty "12" engine. By A. L. Dyke, E. E., St. Louis: A. L. Dyke. Price \$5.00.

The editor looks upon this book as a sort of automobile bible. It contains everything that anybody can possibly want to know about the structure and maintenance of a car. Never yet has he failed to find the thing he has been looking for. It contains some 532 charts, and illustrations too numerous to mention. There are descriptions of all kinds of cars and all kinds of parts of said cars. We predict that in many a home "Dyke's Automobile and Gasoline Engine Encyclopedia" will, hereafter, divide honors with the Sears-Roebuck catalog and the family Bible—and that it will be read more earnestly and frequently than the Bible.

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# Condensed Queries Answered

While the editors make replies to these queries as they are able, they are very far from wishing to monopolise the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report their results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

## Queries

QUERY 6463.—“Myiasis Narium, or Worms in the Nose.” E. W. S., Oklahoma, recently was called to see an old man that had been bleeding from a nostril for thirty-six hours. The man had practiced medicine, year ago, and had diagnosed the epistaxis as due to a ruptured vessels, caused by an old chronic catarrh. He tried emetine, adrenalin, alum, cold cloths, and other measures, but, the blood continued to ooze steadily. He did not experience any pain and was not alarmed, as the Doctor, himself, was. The latter writes:

“I remained with him most of the day. Several hours after I had left, the son called me, saying, ‘Father still is bleeding and wants you to come again. I could not go then, so I telephoned another doctor and requested him to see the old man, do what he considered indicated, and let me know what he thought might be the trouble and that I should make a call next morning. The Doctor went, failed to check the bleeding, gave him a hypodermic injection of morphine and left.

“Next morning, I found the patient very nervous and growing a little uneasy. I injected 1-4 grain of morphine in his arm, which had no effect; later, I gave him  $\frac{1}{4}$  grain more, also without effect; so, I gave a further  $\frac{1}{2}$  grain—a total of 1 grain morphine in about one hour. Still I could not discern any effect. I noticed, at times, that a pale-looking fluid would drop from his nostril, then pure fresh blood, then dark clots.

“I now made a solution of chlorazene (one 2-grain tablet to an ounce of warm water), saturated a pledget of absorbent cotton with it, and pushed high up into the bleeding nostril. Within a few minutes the patient complained of blood getting into his throat. So, I withdrew the cotton and told him to

blow the nose as hard as he could, whereupon the largest ‘screw-worm’ that I ever have seen became dislodged.

“Being sure now of the diagnosis, I telephoned to another doctor, who is a very fair surgeon, and explained the case, so that he would come prepared to do what he thought best. Upon his prompt arrival and learning the situation, he decided to spray out the nostrils every hour and suggested giving as much liquid nourishment as could be taken. I remained several hours after the Doctor had gone, carrying out his instructions, and left along toward night, giving instructions to continue the treatment and to call me if the patient were alive next morning; however, just before daybreak he died.

“It was reported that, after the man died, 96 screwworms came from his nostril. I doubt that there were that many; I do know, though, that there were very many—I am sure, more than 50. It is strange to me there was neither any odor, enlargement or pain, nor any indication of foreign bodies being present.

“Please tell me whether you ever saw or heard of a similar case? Of course, there are many to censure me. Some blame me for not having located the trouble and cured it; others say that ‘if I had been there, I’d have found them ‘er worms and got every one of ‘em.’ But, I did my very best, and when I do this, I have a clear conscience.”

If you have access to a file of CLINICAL MEDICINE, you will find this subject covered in Query 5629, October, 1910; also, in the December, 1910, issue, about an interesting case of myiasis intestinalis due to infection with three species of dipterous larvæ, reported by Doctors E. F. McCampbell and H. J. Corper. The original paper appeared

in *The Journal of the American Medical Association* for October 9, 1909.

As a matter of fact, myiasis narium (larvæ, or screw-worms, in the nose) is an infection not uncommonly observed in South America and other tropical countries, where it is likely to be associated with extensive ulceration of the tissues, destruction of the bones of the face, production of pain, epistaxis, septicemia, sometimes convulsions, coma, and death.

One case of "maggots in the nose" was reported, some time ago, by an Oklahoma physician, also several such cases, by practitioners in Texas. Both in the Oklahoma and the Texas cases, the larvæ found were those of the Texas screw-worm-fly. As many as 200 or 300 screw-worms have been ejected from a single individual.

Thomson, in "Diseases of the Nose and Throat," states that this distressing affection is most commonly met with in persons already victims of ozena, syphilitic disease of the nose, or other purulent nasal affections, the flies being attracted by the fetid odor, depositing their eggs in or near the nasal cavities. Rarely does this occur when the mucous membrane is healthy, since such a nose is so well provided with defensive arrangements that there will be little chance for any eggs being hatched.

The incubation-period of the eggs is very short and frequently already within a day or two symptoms of irritation are set up. There is a sensation of tickling and of "something moving about," soon followed by sneezing and bloody discharge. The irritation may amount to a distressing degree of formication and there may be extreme pain over the base of the nose, at the vertex and the occiput. The discharge may become thicker, more purulent and very offensive; maggots may be discovered in it and the epistaxis become severe. Edema of the eyelids and face ensues, abscesses form and, when these burst, the enclosed larvæ escape.

Inspection, in a marked case, discloses that the interior of the nasal chambers has been more or less completely destroyed. Not only is the mucous membrane involved, but, the cartilages and bones undergo necrosis and the accessory sinuses are opened or filled with larvæ and putrescent material. This state of things gives rise to septicemia and all its train of symptoms.

In some cases occurring in the southern states, although there was considerable

general reaction, with acute inflammation of the nasal mucous membrane, prompt resort to medical aid averted local ulceration.

It can be readily understood, of course, that, when the accessory cavities have been invaded by the worms, involvement of the meninges is liable to occur. It is generally considered that those cases that are seen early are easily and satisfactorily dealt with; but, the outlook is grave when the patient does not come under observation until extensive destruction of tissue has taken place or the deeper sinuses have become occupied by the larvæ.

Once the condition is recognized, screw-worms can, as a rule, be dislodged by applying chloroform, either on cotton-wool pledgets or mixed with an equal volume of water and syringed down the nostrils, or the vapor inhaled in the usual manner. In this way, the larvæ are easily brought away. Of course, where destructive processes have taken place, appropriate treatment must be instituted.

One or two competent observers recommend the use of olive-oil or liquid petroleum, the nasal chambers to be completely filled with it after the patient has been placed in the horizontal dorsal position, with the head hanging over the edge of the couch.

It is remarkable that, in your case, the patient did not complain of pain or formication; however, the age of the man and the fact that he had suffered for some years from "catarrh" (probably atrophic rhinitis) may account for the local anesthesia.

Unfortunately, you do not supply sufficient data to enable us to decide whether death was the result of sepsis or of loss of blood; we do feel, though, that it is unfortunate that, after the single screw-worm was expelled, more active measures were not taken to remove the host of larvæ that evidently were present. The heavy doses of morphine were, in this writer's opinion, most undesirable. It is just possible that the use of chloroform at this time might have saved the man's life. On the other hand, the destruction of tissue and consequent systemic toxemia may have been so profound that the old man would have succumbed despite everything that could have been done for him.

In all these cases of obstinate epistaxis thorough exploration of the nasal cavities

should be done with a head-mirror and reflected light.

QUERY 6464.—“The Internal Use of Chlorazene.” H. W. K., Virginia, asks: (1) “Is the internal use of chlorazene tablets ever indicated? (2) What harm might result from their internal use? (3) Could they, in any way, be habit-forming, that is, could a patient form the habit of taking them, and what would be likely to cause it?”

Recently, the internal use of chlorazene has been recommended by several physicians, but we should not advise the administration of chlorazene tablets, as such, a solution being much preferable for obvious reasons. However, it is on record that patients have taken several chlorazene tablets without experiencing any untoward effects whatever.

We cannot, at this time, express a definite opinion as to the possibility of an individual forming a “chlorazene-habit,” though such a probability is extremely remote. It is likely that any prolonged use of chlorazene would, to a greater or less degree, derange the gastric secretions and might cause some irritation of the gastric mucosa. Given for short periods, in reasonable doses, however, no such undesirable effects should be observed.

Should you have any experience in this direction, we sincerely hope that you will favor us with a detailed report, as we have yet much to learn regarding the internal use of chlorazene.

QUERY 6465.—“Obscure Case of Pain in Spine.” W. A. L., Kentucky, has a patient “whose pathology is a hidden mystery” to him and to all others whose skill has been tested, including several Louisville specialists. Blood tests and other tests, have failed to show anything abnormal. Three joints of the lower spinal column seem to be affected, so that a slight strain at that point induces an unbearable pain. This condition has persisted for months. “What I want is, something not forbidden by the Harrison law that will relieve or prevent those awful pains. The patient is very bright.”

As you can readily understand, it is practically impossible to advise any therapeutic procedure for an unknown pathological condition or, for that matter, even to make

intelligent comment. We do not even know whether this patient is a man or a woman, or whether the “pain in the three lower segments of the spinal column” (even this is rather vague) appears *only* upon stress or pressure over the area or whether it is constant, only becoming more marked upon strain.

We take for granted that syphilis, tuberculosis, caries and, even, a possible subluxation can be excluded?

In some such cases, the application of “flying-blisters” proves most beneficial. A piece of cantharidal plaster the size of a 50-cent coin is applied on one side of the spinal column, the resultant bleb is drained, then another plaster applied slightly higher and upon the other side, and the process repeated every few days.

At the same time, thorough elimination must be secured, while, also, the patient may be given reasonably full doses of sodium salicylate, acetylsalicylic acid or, even gelsemium. Occasionally, opiates are demanded; however, in practically every instance a thorough examination will enable us to locate the underlying cause, and, so, to institute rational treatment.

QUERY 6466.—“Radio- and Thermo-Therapy.” R. P. C., Canada, desires to use the violet rays in a case of chronic neuritis and, at the same time, apply a preparation of iodine with methyl salicylate and drive it in and quicken absorption by means of light. He writes: “I see advertised several appliances recommended for such a purpose, namely:

“(1) A thermolite lamp; (2) a violet-ray generator; and (3) the Roger’s high-frequency generator, type H, mentioned in your Journal for December last.

“These all are operated from an ordinary lamp-socket and, in this respect, would suit me. I am not familiar with electrotherapeutics, as we have not had a lighting-plant until within about two years, and there was not enough work to be done in this field to warrant the expense of putting in the necessary apparatus—except as a hobby.

“I chiefly desire your opinion as to which would be the most advantageous and useful apparatus for my purpose, because every manufacturer, like the fond mother, considers his own goose a swan. Is there a distinctive difference between the violet ray or the high-frequency current



and that produced by the single or triplex thermolite lamp?"

We believe that you will obtain just the information wanted from the literature supplied by the makers of the various lamps and generators mentioned, but, venture to call your attention to the fact that there is a vast difference between the action of light-rays and high-frequency currents.

Unfortunately, it is impossible for us, in the scope of an ordinary communication, to discuss intelligently the principles of phototherapy and medical electricity, with especial reference to diathermy or thermopenetration.

As you are aware, a vacuum-tube exhausted to the Geissler degree of 1-1000th atmosphere does not become luminous on the passage of a continuous current, no matter what the tension, but, as soon as the current intermits or alternates, the tube lights up and becomes filled with a reddish, bluish or violet light, no visible or audible spark passing through it.

Many different effects can be obtained by application of the high-frequency current and there are various forms of glass vacuum-electrodes, some with insulated handles, with or without interior metal conductors, and others insulated throughout their extent, except the discharging portions of the respective terminals.

Certain effects of high-frequency currents are common to all the different methods of application, namely, those of increased metabolism. Other effects depend upon the mode of application, and are chiefly vasomotoric.

This subject is very thoroughly covered in all modern works on medical electricity. We should especially recommend Tousey's "Medical Electricity and Roentgen Rays," and Jacoby's "Electricity in Medicine."

With *light* as a therapeutic agent, we have to consider the luminous, chemical, and heat-rays. As you are aware, in addition to the ordinary chemical rays that ac-

company the visible rays of light, there are what are known as the ultraviolet rays; those that are beyond the violet and are invisible.

It has been shown by Finsen that our sunlight is poor in ultra-violet rays, owing to absorption by the atmosphere; while the arc-light is extremely rich in the rays and, by a properly constructed apparatus, produces a light that, when filtered out by a layer of water contained in a quartz vessel, kills the bacillus prodigiosus in two or three seconds.

Various germs show different degrees of susceptibility, but, cultures of any of them may be sterilized by exposure to the ultraviolet ray, in from a few seconds to a few minutes.

It is quite evident that an apparatus that would prove effective under certain conditions would fail entirely in others.


Treatment with incandescent electric light can readily be carried out and will prove effective in sciatica, lumbago, dyspepsia, colitis, pruritus vulvæ, rheumatoid arthritis, and cases on the border-line between gout and neuritis.

Red and blue screens can be interposed. As you are aware, it is said that blue light exerts a calming and sedative influence, and that red light is effective in preventing the pitting of smallpox, scarlet-fever, measles, erysipelas, and noma. However, there is little reason to believe that the same results would not follow by keeping the patient in darkness.

In the Minin lamp, we have a blue glass bulb and a reflector, the effects of which are almost exclusively due to heat. It may be employed, with advantage, in joint injuries and inflammations, in eczema, superficial dermatoses, neuralgia, and rheumatism.

Briefly, anyone of the appliances mentioned by you may be used in a limited field, but, no one of them can, possibly, meet all the requirements.





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